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OCCUPATIONAL SURVEY REPORT

COMMUNICATIONS-COMPUTER SYSTEM OPERATORS AND CONTROLLERS AFSC 3C0X1 / 3C2X1

OSSN: 2348

OCTOBER 1999

OCCUPATIONAL ANALYSIS PROGRAM
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HQ AETC/DPSE	1		1/1	
HQ AFMC/DPEE	3		3/3	
HQ AFSOC/DPPMT	2		2/2	
HQ AFSPC/DPDXE	3		3/3	
HQ AIA/DPT	3		3/3	
HQ AMC/DPPET	1			
HQ PACAF/DPPET	2		2/2	
86 MSS/DPMAT	3		3/3	
HQ USAF/ILMM	1		1/1	
336 TRS/TRR (600 HANGAR RD, RM 151, KEESLER AFB MS, 39534-2235)	1	1/1	2/2	5
81 TRG/TGET	1		1/1	

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PREFACE

This report presents the results of an Air Force Occupational Survey of the Communications-Computer Systems Operator and Controller career ladders, Air Force Specialty Codes (AFSC) 3C0X1 and 3C2X1. Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

First Lieutenant Chris Gilliam developed the survey instrument, Ms. Karen Tilghman provided computer-programming support, and Ms. Dolores Navarro provided administrative support. First Lieutenant David W. May analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Roger W. Barnes, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to AFOMS/OMYXI, 1550 5th Street East, Randolph Air Force Base, Texas 78150-4449, or by calling DSN 487-5543. For information on the Air Force occupational survey process or other on-going projects, visit our web site at http://www.omsq.af.mil.

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SUMMARY OF RESULTS

1. **Survey Coverage**: The Communications-Computer Systems Operators and Controllers career ladders were surveyed to provide current job and task data for use in updating career ladder documents and training programs. Survey data will also be used in support of an upcoming merger of these two career ladders. Survey results are based on responses from 4,702 Active Duty (AD) members accounting for approximately 60 percent of the total surveyed population of both career ladders combined. Of the 4,702 responses, this sample includes 3,825 AFSC 3C0X1 members and 877 AFSC 3C2X1 members.

2. **Specialty Jobs**: Eight clusters and eight independent jobs were identified in the career ladder structure analysis accounting for 84 percent of the total sample. The remaining 16 percent, for one reason or another, did not group into any of the identified jobs and clusters. The Network Administration Cluster encompassed the largest percentage (35 percent) of this career ladder. The second largest cluster, Telecommunications, came in a distant second, representing about 14 percent of these two career ladders. However, due to the fact that nearly all of the members within the Telecommunications cluster were 3C0X1's, this cluster represented about 17 percent percent of the 3C0X1 career ladder.

3. **Career Ladder Progression**: AFSC 3C0X1 and 3C2X1 personnel progress typically through the career ladder. At the 3-skill level, the majority of incumbents perform tasks that are predominantly technical in nature with AFSC 3C0X1 members working mainly in either network administration type activities or message distribution centers. AFSC 3C231 members work mainly in tech control type facilities at this level, performing technical tasks. As they progress to the 5-skill level, both groups move away from other jobs and more toward network administration and management. Then, at the 7-skill level, there is a shift into management and supervisory activities for both groups.

4. **Training Analysis**: A match of the survey data to the tentative merged STS revealed several discrepancies. Of note, was that most of these occurred for the 3C2X1 career ladder. The 3C2X1 career ladder had the most areas that required a proficiency code review and the most technical tasks not referenced to the STS. Because this is a merged STS, this is not too surprising. Conversely, the 3C0X1 data match showed few problems. Only a few technical tasks with substantial numbers performing were not matched to the STS and only a couple of areas were selected for proficiency code review. Overall, the STS was found to be supported, but with a few problem areas mainly for the 3C2X1 career ladder.

5. **Job Satisfaction**: Since the previous OSR, there have been noticeable decreases in reenlistment intentions for both the 3C0X1 and 3C2X1 career ladders at every TAFMS group level. Also noted was a low perceived utilization of training among AFSC 3C2X1 members when compared to other support career ladders. Upon examining the data compared to the past survey, however, it became obvious that this is not irregular for this career ladder. For both career ladders, most job satisfaction indicators (other than reenlistment intentions) were lower than the comparative sample, but the same or slightly higher than in previous surveys.

6. **Implications**: The current AFSC 3C0X1 and 3C2X1 career ladders reflect typical job progression and for the most part, specialty descriptions accurately depict the work being accomplished; however, some areas should be examined for possible updating. Also, results indicate that while some overlap exists, the majority of the members of each of these career ladders perform separate tasks and jobs.

OCCUPATIONAL SURVEY REPORT (OSR)

COMMUNICATIONS-COMPUTER SYSTEMS OPERATOR / CONTROLLER (AFSC 3C0X1 / 3C2X1)

INTRODUCTION

This report is an analysis of occupational survey data from the Communications-Computer Systems Operator and Controller career ladders conducted by the Air Force Occupational Measurement Squadron (AFOMS). Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials. The last OSRs pertaining to these career ladders were published in June '95 for AFSC 3C0X1 and June 1994 for AFSC 3C2X1. The data contained herein will be used to identify current utilization patterns among AFSC 3C0X1 and 3C2X1 personnel and evaluate the overlap between the two for a possible upcoming merger. Results will also help to evaluate career ladder documents and training programs.

Background – 3C0X1

AFSC 3C0X1. According to AFMAN 36-2108, *Airman Classification*, personnel in the 3C0X1 career ladder supervise or operate fixed and deployed communications-computer systems (C-CS). They also perform or supervise activities such as configuring and monitoring hardware and software for system operation, processing and control of data flow, and client-server multi-user system support including network management or administration. Additional responsibilities include microcomputer fault isolation and restoral actions.

AFSC 3C0X1 airmen entering course E3ABR3C031-003 at Keesler AFB, learn network operations for 2 blocks of instruction and are taught using the UNIX operating system with an improved HPUX file server. In the future, the first change to occur will be a minor modification of the current course material and a major upgrade in training systems. Before October 1999, new Pentium computer systems should be in all classrooms, and block lengths should change to 10 days each. This initial change will greatly increase the number of students trained per year.

Course length is 56 Academic days, equating to approximately 3 months. This course awards 18 semester hours through the Community College of the Air Force, towards an Associates Degree in Information Systems Technology.

Current Entry into the AFSC 3C0X1 career ladder requires an Armed Services Vocational Aptitude Test Battery (ASVAB) requirement of General – 60 and a Strength Factor of "G" (weight lift of 40 pounds). For award and retention of AFSC 3C031/51/71, eligibility for a Top Secret security clearance according to AFI 31-501, *Personnel Security Management Program*, is mandatory.

Background – 3C2X1

AFSC 3C2X1. According to AFMAN 36-2108, Airman Classification, personnel in the 3C2X1 career ladder monitor and control performance of networks and C-CS. This includes coordination of configuration, operation, restoration, and service improvements. In addition, they analyze network capabilities and performance, identify problems, and take corrective action. This includes directing and making operational adjustments to C-CS equipment.

Personnel entering course number E3ABR3C231 001 at Keesler AFB, learn principles-centered training relating to radio and wire telecommunication equipment, systems, and circuits. They also learn procedures and facilities for monitoring circuits and analyzing their performance, techniques and standards relating to checking signals to ensure acceptable quality and serve as a basis for predicting and preventing or correcting circuit deterioration or system malfunctions. Course knowledge also includes electronic principles, codes, equipment, and operation; principles and features of DSN; system analysis and troubleshooting techniques; computer principles and digital techniques; and control and coordination facilities and procedures. Course length is approximately 80 days and awards 31 hours of CCAF credit.

Entry into the AFSC 3C2X1 career ladder currently requires an ASVAB aptitude requirement of Electrical – 67 and a Strength Factor requirement of "h" (weight lift of 50 lbs.). For award and retention of AFSC 3C231/51/71/91, eligibility for a Top Secret security clearance according to AFI 31-501, *Personnel Security Management Program*, is mandatory.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Occupational Survey Study Number (OSSN) 2348, dated 12 August 1998. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 23 AFSC 3C0X1 subject-matter experts (SMEs) and 18 AFSC 3C2X1 SMEs at the following training location and operational installations:

BASE	UNIT VISITED
Keesler AFB MS	333 TRS
Schriever AFB CO	50 CS
Cheyenne Mtn. CO	721 CS
Davis-Monthan AFB AZ	612 CS
Robins AFB GA	78 CS, 54 CS, HQ AFRC
Langley AFB VA	1CS
Pentagon	CFM

The resulting JI contained a comprehensive listing of 818 tasks grouped under 20 duty headings. Also included was a background section requesting information such as DAFSC, grade, base, MAJCOM assigned, organizational level, component status, job title, functional area, work schedule, and equipment used.

Survey Administration

From October 1998 through February 1999, base training offices at operational units worldwide administered the inventory by floppy disk to eligible AFSC 3C0X1 and 3C2X1 personnel. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX.

Each individual surveyed first completed a background information section (see above) and then progressed to a Duty-Task section in which each task performed by the incumbent in his/her current job was checked. After completion, each incumbent started back with the first task checked and indicated relative time spent on each checked task as compared to all other tasks performed. This was accomplished by utilizing a 9-point scale in which a "1" indicated a relatively small percentage of time spent, and a "9" indicated a relatively high percentage.

To determine relative time spent for each task checked, all of the incumbent's ratings were first summed, and the resulting total was used as a divisor for each rating. The resulting number was then multiplied by 100 to get a relative time spent rating for each task.

Survey Sample

Personnel were selected to participate in this survey to ensure an accurate representation across major commands (MAJCOM) and military paygrade groups. All eligible AD AFSC 3C0X1 and 3C2X1 personnel were mailed survey booklets. All AFSC 3C0X1 and 3C2X1 personnel were considered eligible unless they were in one of the following categories: (1) hospitalized during administration period; (2) in transition for a permanent change of station; (3) retiring during administration period; (4) in their job for less than 6 weeks.

Table 1 reflects the percentage distribution, by MAJCOM, of personnel assigned to the AFSC 3C0X1 and 3C2X1 career ladders, followed by the percent sampled. Table 2 reflects the paygrade and Duty AFSC (DAFSC) distribution for AFSC 3C0X1 and 3C2X1 personnel.

TABLE 1

COMMAND REPRESENTATION OF
AFSC 3C0X1/3C2X1 SURVEY SAMPLE

MAJCOM	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
ACC	19	21
USAFE	11	13
PACAF	10	11
AETC	8	10
AFMC	9	10
AMC	9	9
AFSPC	8	9
AIA	7	7
USSTRATCOM	2	2
AFSOC	2	1
AWS	2	1
Other	13	6

* Other includes AFTAC, USTRANSCOM, EUR, ELM, 7CG, USAFA, and CENTCOM.

TABLE 2

PAYGRADE/DAFSC REPRESENTATION
OF SURVEY SAMPLE

GRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
E-1 - E-3	16	18
E-4	28	28
E-5	29	29
E-6	15	15
E-7	11	9
E-8	1	1
DAFSC		
3C031	14	15
3C051	46	48
3C071	20	18
3C231	2	4
3C251	11	10
3C271	6	4
3C291	1	1

3C0X1

Total Assigned: 7,439
Total Eligible: 6,336
Total in Sample: 3,825
Percent Assigned in Sample: 51 percent
Percent Eligible in Sample: 60 percent

3C2X1

Total Assigned: 1,996
Total Eligible: 1,605
Total in Sample: 877
Percent Assigned in Sample: 44 percent
Percent Eligible in Sample: 55 percent

TOTAL ELIGIBLE ASSIGNED* = 8,057

TOTAL IN SURVEY = 4,702 (58 percent of eligible assigned)

PERCENT IN SAMPLE = 58 percent

* Assigned strength as of October 1998. Excludes personnel in PCS, student, or hospital status, or less than 6 weeks on the job.

Examining Table 1, it is evident that the MAJCOM distribution in the sample is very indicative of the actual MAJCOM distribution. In Table 2, paygrade and DAFSC for the entire population and the survey sample are also very similar, with only very slight variations. Because the sample numbers are very similar to the actual numbers in many respects, credibility of the results of this report is greatly enhanced.

Task Factor Administration

Job descriptions alone usually do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 3C0X1 and 3C2X1 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet entitled either "Training Emphasis" (TE) or "Task Difficulty" (TD). These booklets were processed separately from the JIs and the information gathered was used in a number of different analyses within this report.

Training Emphasis (TE): TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The AFSC 3C0X1 and 3C2X1 NCOs who completed TE booklets were asked to select tasks they felt should be taught to entry level (1-48 months in service) personnel in some sort of structured training. Structured training is defined as training provided at resident training schools, field training detachments (FTD), mobile training teams (MTT), formal on-the-job-training (OJT), or any other organized training method. Next, they were asked to indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis).

Task Difficulty (TD): TD is an estimate of the average amount of time needed for a member to learn each task satisfactorily. The AFSC 3C0X1 and 3C2X1 NCOs who completed TD booklets were asked to rate the difficulty of each task they perform using a 9-point scale (mentioned above). For TD data, ratings are standardized so tasks have an average difficulty of 5.0 and a standard deviation of 1.0. Tasks with a rating of 6.0 or above are considered difficult to learn.

AFSC 3C0X1: Agreement between the final 54 senior NCO TE raters was found to be acceptable. The average rating was 1.31, with a standard deviation of 2.49. Any task with a 3C0X1 TE rating of 3.80 or above is considered to have high TE. Agreement among the 56 NCO TD raters was also found to be well within acceptable limits.

AFSC 3C2X1: Agreement was also found acceptable for the 41 senior 3C2X1 NCOs. The average TE rating was 1.96, with a standard deviation of 2.64. Any task with a 3C2X1 TE rating of 4.60 or above is considered to have high TE. Once again, acceptable agreement was found among the 39 AFSC 3C2X1 TD raters.

When used in conjunction with the primary criterion of percent members performing, TE and TD ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

SPECIALTY JOBS

To accurately analyze any career field, it becomes necessary to first identify the specific jobs being accomplished by the members of that career field. In order to do this, the analyst utilizes the Comprehensive Occupational Data Analysis Program (CODAP) to create an individual job description (case) for each respondent based on the tasks performed and relative amount of time spent by the respondent on these tasks.

The CODAP automated job clustering program compares all of the individual job descriptions, and then groups these cases by similarities in response. Based on the amount of similarity between cases, CODAP will either add new members to this initial group or form new groups which are slightly broader in scope.

The basic group used in the hierarchical clustering process is the ***Job***. When two or more jobs have a substantial degree of similarity, but are distinct in nature, they may be grouped together and identified as a ***Cluster***. Following this logic, the structure of the career ladder is then defined in terms of jobs and clusters of jobs.

Overview of AFSC 3C0X1 and 3C2X1 Jobs

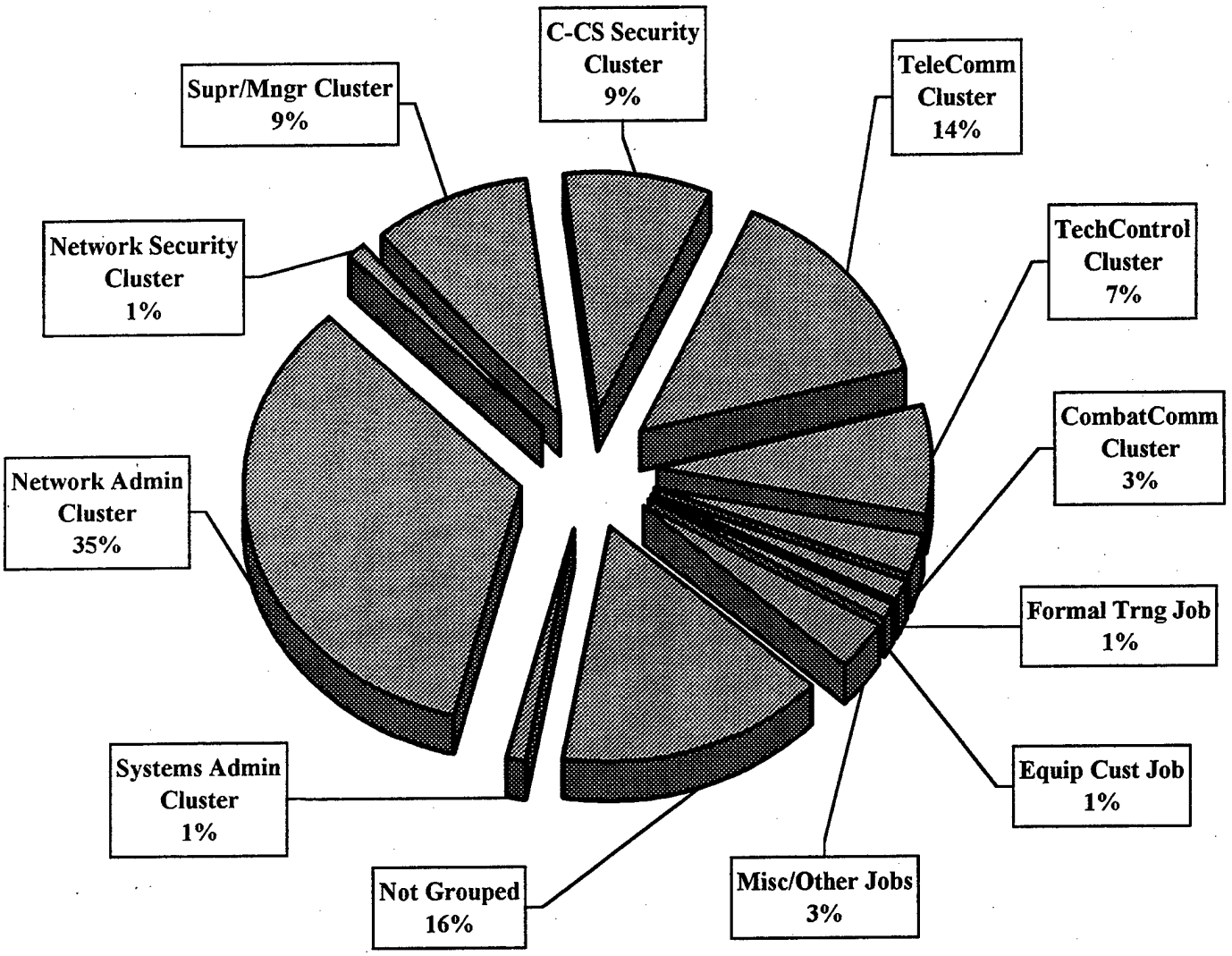
Based on analysis of the data as reported by the AFSC 3C0X1 and 3C2X1 career ladders, eight clusters and eight independent jobs were identified. Figure 1 graphically illustrates the job structure of these two AFSCs.

A listing of the specialty job structure is provided below. The stage (STG) number shown beside each title references computer generated information and the letter "N" indicates the number of personnel in each group.

A. Systems Administration Cluster (STG255) – N = 57
B. Network Administration Cluster (STG167) – N = 1,588
C. Network Security Cluster (STG365) – N = 51
D. Supervisor/Manager Cluster (STG291) – N = 429
E. C-CS Security Cluster (STG204) – N = 408
F. Telecommunications Cluster (STG217) – N = 671
G. Tech Control Cluster (STG238) – N = 346
H. Combat-Comm Cluster (STG272) – N = 136
I. Formal Training Job (STG846) – N = 61
J. Magnetic Media Job (STG646) – N = 34
K. Mainframe Operator Job (STG522) – N = 36
L. Systems Monitoring Job (STG439) – N = 18
M. Quality Control Job (STG588) – N = 34
N. Message Distribution Job (STG639) – N = 20
O. Equipment Custodian Job (STG589) – N = 56
P. Switchboard Operator Job (STG640) – N = 17

The respondents forming these jobs account for 84 percent of the survey sample. The remaining 16 percent, because of dissimilarities with the rest of the career ladder, did not group into any of these jobs. Examples of job titles for not grouped personnel include "CDC Writer", "Curriculum Developer", "Field Support Analyst", and "Software License Manager".

AFSCs 3C0X1 and 3C2X1
CAREER LADDER SPECIALTY JOBS
(N = 4,702)



Miscellaneous/Other Jobs include: Systems Admin Cluster, Magnetic Media Job, Mainframe Operator Job, Systems Monitoring Job, Quality Control Job, Message Distribution Job, and Switchboard Operator Job

FIGURE 1

Group Descriptions

Following are descriptions of the clusters and jobs identified during the career ladder structure analysis. Table 3 presents the relative time spent on duties by members of these specialty jobs. Selected background data for these jobs are provided in Table 4. Representative tasks for all groups are contained in Appendix A.

I. NETWORK ADMINISTRATION CLUSTER (STG167). The 1,588 members forming the Network Administration Cluster spend their time in a variety of positions that all center on the management and administration of networks, usually from a base network control center. Indicative of this is the large 41 percent of their time spent in Duty B, *Performing Network Management and Administrative Activities,* as can be noted in Table 3. This cluster is by far the largest and includes eight jobs. Members within this cluster perform an average of 67 tasks. Some of the most common to this cluster are listed below.

- Assist users in resolving computer software malfunctions and problems
- Answer trouble calls from end users dealing with network outages
- Configure operating systems, such as UNIX or NT server
- Troubleshoot network log-ons for end users
- Configure network software for end users
- Install network software for end users

Table 4 shows that all most of these respondents are E-4 or E-5, and most (65 percent) are performing at the 5-skill level. Average time in the career field is around 5 years (64 months) and most are located within the CONUS. Eighty-seven percent of these members are AFSC 3C0X1 and the remaining 13 percent are AFSC 3C2X1.

A. The first job identified within this cluster was the DMS Tech Job. The 34 members within this job spend most of their time performing network management activities. Configure operating systems, such as UNIX or NT server was the most commonly performed task for these members and all were 3C0X1. Other commonly performed tasks all pertain to server and network maintenance.

B. The next job identified was the Network Tech Support Job. The 206 members performing this job mainly perform tasks such as assist users in resolving computer software malfunctions or problems, troubleshoot e-mail problems at user level, troubleshoot network log-ons for end users, and answer trouble calls from end users dealing with network outages. Sometimes known as "Trouble teams", these seem to be the members who actively go out and fix helpdesk type problems. Nearly all these members are 3C0X1.

C. Another job identified within this cluster was the Helpdesk Tech Job. These 39 members perform tasks such as open trouble tickets and assign to appropriate workcenters, and answer trouble calls from end users dealing with network outages. Common work areas include Small Computer Support and Base Network Control Center (BNCC) Network Tech Support. Once again, the vast majority of these members are 3C0X1.

D. One of the larger jobs identified within this cluster was the Network Administrator Job. The 547 members of this job spend the largest part of their time performing network administration type activities. Only 8 percent of these members are 3C2X1 and about 31 percent are stationed overseas. They are mostly E-4 and E-5 and the most commonly performed task is configure operating systems, such as UNIX or NT Server.

E. The next job identified within this cluster was the Network Administration Supervisor Job. The reason this job did not appear within the Supervisor/Manager cluster is that although these 361 members perform many supervisory type tasks, the bulk of their time is still spent in more technical areas such as network management and administration. Some common job titles for this job include NCOIC, Network Support, "NCOIC, Network Management", and "Chief, Network Operations". These members tend to be more senior in rank (mostly E-6s) and TAFMS than other jobs within this cluster. Most are AFSC 3C0X1.

F. Another job identified within this cluster was the Network Controller Job. Seventy-two percent of the 51 members in this job indicated a 3C2X1 DAFSC and tended to be in paygrade E-5 or E-6. Although these members spend a large 20 percent of their time performing network management and administration activities, they spend a slightly larger 22 percent of their time maintaining telecommunications systems. Some of the differentiating tasks performed by this group include: perform fault isolation on LANs, troubleshoot connectivity problems from servers to workstations, and fabricate cables. Most of these members also reported working in Base Network Control Centers.

G. The next job group identified was the Network Infrastructure Engineer Job. The 67 members of this group reported performing an average of 63 tasks and are distinguished by those that focused on network infrastructure. Examples of these included: Maintain network infrastructure, upgrade network infrastructure, and develop diagrams of network infrastructure. Most of these members are E-4 and E-5. There were slightly more AFSC 3C2X1 members than 3C0X1 identified for this job (39 percent DAFSC 3C251 vs. 31 percent DAFSC 3C051), but overall this was a very heterogeneous group. Most members are in AETC.

H. Another job identified within this cluster was the Network Infrastructure Tech Job. Although similar in task performance to the Network Controller Job mentioned earlier, these 22 members tend to perform fewer tasks (50) and tend to be lower in paygrade (most are E-4). Also, many of these members are performing at the 3-skill level, and are located primarily in AETC. Most of these members are AFSC 3C2X1 and commonly perform tasks such as install LANs, perform fault isolation on LANs, and answer trouble calls from end users dealing with network outages.

II. SYSTEMS ADMINISTRATION CLUSTER (STG255). The 57 airmen performing within this job (1 percent of the survey sample) spend 64 percent of their time in Duty A, *Performing General C-CS Activities*, as is shown in Table 3. What distinguishes them most is their lack of diversity. They perform an average of only 11 tasks, the lowest of all other jobs and clusters. Typical tasks performed include:

- Assist users in resolving computer software malfunctions or problems
- Configure operating systems, such as UNIX or NT Server
- Install computer hardware for end users
- Assist customers in preparation of help desk requests
- Analyze computer performance measurement data

Referring to Table 4, one can see that 96 percent of the members within this job are AFSC 3C0X1 and 57 percent are at the 5-skill level. Predominant paygrade for this cluster is E-4.

Two jobs were found within this cluster, a General C-CS Job and a Systems Analyst Job. The General C-CS Job members perform an average of only six tasks. Most common is assist users in resolving computer software malfunctions or problems. The 22 Systems Analyst members perform a slightly higher average number of tasks (16) which include the aforementioned task plus analyze computer performance measurement data and Analyze statistical data, such as systems availability.

III. NETWORK SECURITY CLUSTER (STG365). The 51 members of this cluster spend the majority of their time performing network security type activities. Examining Table 3, it is evident that much of their time (53 percent) is spent in Duty B; however, it should be noted that the tasks most often performed by these members mostly centered around network security as opposed to network administration or maintenance. Also of note is that nearly all of these members are AFSC 3C0X1 (92 percent). The average number of tasks performed by these members is 31 and typically included:

- Review incoming or outgoing network logs for suspicious traffic
- Respond to real-time ASIMS alerts
- Monitor network events, such as invalid log-ons
- Manage application of Air Force Computer Emergency Response Team (AFCERT) advisories or IP bulletins
- Identify customers involved in network security violations
- Analyze statistical data, such as systems availability, user log-ons, or traffic data

Table 4 shows their predominant paygrade as E-4/E-5. Average TAFMS for this group is about 9 years and a higher percentage than any other identified group (16 percent) report working in the Air Intelligence Agency (AIA). Only 24 percent are located outside the CONUS.

There were two jobs identified within this cluster. They were the Network Security Analyst Job and the Network Security Manager Job. Probably the largest difference between the two is in the average number of tasks each reported performing. The Network Security Analysts reported performing an average of only 19 tasks, while the Managers reported performing 48 tasks in their job. Also, while the Managers are slightly higher in average paygrade (E-5 vs. E-4), the Analysts had much higher average time in career field (93 months vs. 29 months). Some tasks that managers reported performing to a high degree that Analysts did not include: report network security violations, such as sending classified messages through unclassified circuits and coordinate resolutions of network security violations with designated approval authority (DAA).

IV. SUPERVISOR/MANAGER CLUSTER (STG291). As could be guessed by the title, the 429 members of this cluster are mostly supervisors and NCOICs. These members spend the majority of their time (41 percent) in Duty Q, *Performing Management and Supervisory Activities*, as shown in Table 3. These members performed an average of 75 tasks such as:

- Write or indorse military performance reports
- Counsel subordinates concerning personal matters
- Write recommendations for awards or decorations
- Evaluate personnel for compliance with performance standards
- Interpret policies, directives, or procedures for subordinates

As seen in Table 4, most of these members are 3C0X1 (84 percent), but this is probably because the 3C0X1 career ladder is much larger than the 3C2X1. The predominant paygrade of the members of this cluster is E-7, but there are nearly as many E-6s and E-5s also. This group also had a very high average TAFMS of slightly over 15 years. About 28 percent of this cluster is located overseas.

A. The first job identified within this cluster was the Supervisor/Manager Job. The 273 member of this job formed the bulk of this cluster and their main tasks are the same as those listed for the cluster in general. Average TAFMS for these members is very high (16 ½ years average) and 94 percent reported supervising. Typical job titles include Operations NCOIC, Flight Superintendent, and Chief of Operations.

B. The second job identified within this cluster was the Equipment Control Officer Job. The 30 members performing this job, while still performing many of the supervisory and management type tasks, also spend the majority of their time (36 percent) in Duty T, *Performing General Supply and Equipment Activities.* Tasks that distinguish these members include, maintain equipment custodian accounts, maintain training records or files, and review automated or manual AF Forms 3215 (C4 Systems Requirements Document).

C. Another job identified within this cluster was the Shift Supervisor Job. While performing many supervisory and management type tasks, these 53 members also spend a large amount of their time performing mainframe computer activities and training activities. Some distinguishing tasks for these members include, perform C-CS equipment power-on or power-off procedures, counsel trainees on training progress, and conduct OJT. About 98 percent of these members report supervising and most are located in AFSPC and AWS.

D. The final job identified for this cluster was the Systems Impact Management Job. The 18 personnel performing this job are unusual in the fact that they performed very few supervisory or management type tasks. Their most common duty area is Duty G, *Performing Mainframe Computer Activities.* They also spend high amounts of time in quality assurance, configuration management, and network management activities. Some distinguishing tasks for these members include, transfer programs or data form one media to another media, notify affected personnel, such as supervisors or remote users, of machine failures or downtimes, determine impact of operating system errors, and isolate causes of machine stops or malfunctions.

V. C-CS SECURITY CLUSTER (STG204). The C-CS security cluster differs from the network security cluster in that the 408 members of this job perform computer system security and also Communications Security or COMSEC as opposed to network security measures such as firewalls. There are four major jobs identified within this cluster. What they have in common though, is the large amount of time they all spend performing tasks that are referenced in Duty O, *Performing Communications-Computer Systems Security* (see Table 3). This cluster reported performing an average of 78 tasks such as:

- Store or safeguard classified materials
- Witness destruction of classified materials
- Destroy or dispose of classified or sensitive unclassified materials

Table 4 shows that the majority of these members are 3C0X1, with only 4 percent being AFSC 3C2X1. Most of these members are E-5 and had an average TAFMS of about 12 years; however, this does vary somewhat between jobs. It was also noted that 36 percent of these members are stationed overseas.

A. The first job identified within the C-CS Security Cluster was the Unit CompuSec Manager Job. The 19 members of this job perform not only Computer Security (CompuSec) type tasks, but several network security tasks as well. Some differentiating tasks include, research computer virus inquiries, identify customers involved in network security violations, and prepare accreditations or certifications for risk analysis documentation. They perform an average of 30 tasks and are mostly in the E-5 paygrade. Most of these members are assigned to AFSOC or ACC.

B. The second computer security type job found within this cluster was the Security Office CompuSec Manager Job. These 23 members commonly performed tasks such as conduct security briefings or debriefings, conduct self-inspections or self-assessments, and implement safety or security programs. Mostly E-5s, these members had an average TAFMS of about 10 years.

C. The next job identified was the COMSEC Program Manager Job, which pertains mainly to COMSEC. The 168 members of this job spend much of their time (26 percent) performing tasks from Duty O, but spend a slightly greater amount of time (27 percent) performing management and supervisory type tasks (Duty Q) as well. Average TAFMS for this group is 14 ½ years and most are performing at the 7-skill level. Typical tasks include, store or safeguard classified materials, witness destruction of classified materials, and sign receipts for classified materials. Average paygrade for these members is E-6.

D. The final job identified within this cluster was the COMSEC Accountant Job. While performing many of the same tasks as the COMSEC Program Managers, these 170 members perform much less management and supervisory type duties. They are mostly E-4s and E-5s and have an average of about 10 years TAFMS. Most are at the 5-skill level and some tasks which distinguish the COMSEC Accountants from the Program Managers include, maintain COMSEC account records, page count classified materials, and maintain COMSEC Emergency Action Plans (EAPs).

VI. TELECOMMUNICATIONS CLUSTER (STG217). The Telecommunications Cluster found within this survey comprises approximately 671 members. As shown in Table 4, 99 percent of these members are 3C0X1. Together they spend an average of 32 percent of their time in Duty K, *Performing Telecommunications Traffic Analysis*. Most of these members report working in Message Distribution Centers and perform an average of 83 tasks. Typical tasks accomplished by the members this cluster includes:

- Respond to service messages
- Prepare service actions on messages, such as misrouted, garbled, incomplete, or interlaced
- Follow up on service messages
- Stamp messages with special handling, precedence, or classification
- Distribute messages or output products
- Inspect message forms for releasing authority, classification, precedence, date-time group, or special instructions

Table 4 shows the predominant paygrade for this cluster as E-4. Average TAFMS for this group is about 6 ½ years and 36 percent are stationed at overseas locations.

Two main jobs are found in this cluster; a Communications Center Computer Operator Job and an Overseas Comm-Center Computer Operator Job. The main difference between these two groups, is the amount of time each group spends in Duty K, *Performing Telecommunications Traffic Analysis*, type activities. The Overseas Operators tend to spend a large amount of time on network management and security tasks as well as telecommunications traffic analysis. It was also noted that only one AFSC 3C2X1 member was found performing in either of these jobs.

VII. TECH CONTROL CLUSTER (STG238). There are 346 airmen identified as performing within the Tech Control Cluster. These members are unique in the respect that most of the tasks they performed are in Duty F, *Maintaining Telecommunications Systems* (see Table 3). Also, almost all are 3C2X1. These members perform an average of 128 tasks, which typically include the following.

- Perform fault isolation on digital circuits
- Perform digital circuit loop-backs
- Perform equipment loopbacks
- Perform bit error rate tests (BERTs) on digital circuits or equipment

Appropriately, most of these members are identified as AFSC 3C2X1. Although Table 4 shows five percent are AFSC 3C0X1, this is mainly true only at the earlier stages of this cluster. The small 3C0X1 population either dwindled or disappeared completely once individual jobs were identified. Examining Table 4, one can see that the most common paygrade for this group is E-4. Average TAFMS for this group is 7 ½ years and nearly half (48 percent) are stationed overseas.

Within this cluster, two jobs were identified. The first was a Tech Controller Job (272 members) and the second was a Secure Net Controller Job (15 members). The main difference

between the two is the fact that the Secure Net Controllers spend much more time than the Tech Controllers performing network administration and security tasks. It was noted that slightly over half of the Secure Net Controllers are stationed at Keflavik and work with the Iceland Air Defense System (IADS).

VIII. COMBAT-COMMUNICATIONS CLUSTER (STG272). In the Combat Communications Cluster, there are approximately 136 airmen identified. Most of these members identified themselves as Mobile Communications Systems Operators. The area in which these members spend the majority of their time is in Duty P, *Performing Communications-Computer Mobility Activities*, as can be seen in Table 3. These members reported performing an average of 192 tasks, much higher than any other cluster or job. These tasks typically included the following.

- Load or unload mobile communications equipment on or off vehicles
- Don or doff chemical suits
- Prepare C-CS equipment for field operations
- Prepare C-CS supplies for field operations
- Camouflage mobile sites
- Prepare clothing for deployment

These members are about evenly split between AFSC 3C0X1 and 3C2X1 members (see Table 4). However, because the 3C2X1 career ladder is much smaller than the 3C0X1 career ladder, there is a greater percentage of 3C0X1 performing in this particular cluster. Average TAFMS for these members is slightly less than 10 years and predominant paygrade is E-5.

A. The first job identified within this cluster was the Combat-Comm NCOIC Job. The 15 Members performing this job tend to be at the 7-skill level and the predominant paygrade is E-6. A distinguishing task performed by these members is identify communications requirements for deployment. About 73 percent of these members reported supervising. Also, the area in which these members spend the second most amount of time is Duty Q, *Performing Management and Supervisory Activities*.

B. The second job identified was the Mobile Comm System Controller Job. These 27 members were somewhat harder to identify because the only thing that really distinguishes them are the huge average number of tasks they perform (347). The duty in which they spend the majority of their time is Duty F, *Maintaining Telecommunication Systems.* Most are 3C2X1s. However, despite the amount of mobility and contingency type tasks they perform, most of these members are not attached to combat-comm squadrons. More than likely they are the mobility or contingency POCs for their squadron.

C. A third group identified for this cluster was the Combat-Comm Operator Job. These 49 members performed an average of 172 tasks such as process calls through mobile telephone equipment. Almost all of these members are AFSC 3C0X1 and are paygrade E-4 or E-5.

D. .The final job identified within this cluster was the Combat-Comm Controller Job. These 44 members differentiate themselves from the Mobile Comm System Controllers by performing a

lower average number of tasks (204) and spending a larger amount of time performing mobility activities and erecting or maintaining tactical and combat-comm equipment or facilities. All of these members are AFSC 3C2X1 and the most are in paygrade E-3. Distinguishing tasks include, lay tactical communications cables, and check continuity of cables or in-house wiring.

IX. FORMAL TRAINER JOB (STG846). The first independent job identified for this study was the Formal Trainer Job. Table 3 shows that the 61 members of this job spend the majority of their time in Duty R, *Performing Training Activities*. Typical job titles reported by these members included Resident Course Instructor and Training NCO. Most are located at Keesler AFB, MS. Average number of tasks performed by these members is 35 and include:

- Conduct formal course classroom training
- Develop training programs, plans, or procedures
- Develop or procure training materials or aids
- Determine training requirements
- Administer or score tests

Table 4 shows that the predominant paygrade of these members is E-5 and average TAFMS is slightly over 12 years. Most of the members of this job are 3C0X1, but this is expected because of the larger number of 3C0X1 members overall. These members are located primarily in AETC and most have a "T" prefix.

X. MAGNETIC MEDIA JOB (STG646). The next independent job identified was the Magnetic Media Job. Incumbents spend most of their time in Duty I, *Performing Magnetic Media Library Activities* (see Table 3). A common job title reported was "Tape Librarian". There were only 34 members identified within this job. This is most likely because this is more often an additional duty than a stand-alone job for members of this career ladder. The incumbents of this job perform an average of 55 tasks that include the following.

- Inventory magnetic media
- Issue magnetic media from library
- Clean magnetic media
- File returned magnetic media
- Degauss magnetic media

These members have an average TAFMS of 5 years and are all E-3s or E-4s. Most have a DAFSC of 3C031 and all members identified within this job are in AFSC 3C0X1.

XI. MAINFRAME OPERATOR JOB (STG522). Another job identified was the Mainframe Operator Job. As can be seen in Table 3, incumbents of this job reported spending the majority of their time (41 percent) performing tasks from Duty G, *Performing Mainframe Computer Operator Activities*. These members also performed an average of 53 tasks such as the following.

- Perform C-CS startup or shutdown procedures,
- Perform C-CS equipment power-on or power-off activities
- Label magnetic media
- Perform recovery procedures on C-CS
- Respond to systems requests

Table 4 indicates that all these members are AFSC 3C0X1 and that their most common paygrade is E-4. Average TAFMS for this group is about four years and eight months. Interestingly, the largest percentage of this group is located within AF Space Command.

XII. SYSTEMS MONITORING JOB (STG439). Another of the independent jobs identified was the Systems Monitoring Job. Members who performed this job spend the majority of their time monitoring some type of display. These tasks are listed in Duty D, *Performing Circuit Monitoring and Analysis Activities,* where Table 3 shows that 26 percent of these members time is spent. These members perform an average of 34 tasks. The tasks most indicative of this job are listed below.

- Monitor automated systems displays
- Monitor automated circuit displays
- Monitor communications equipment using automated systems
- Monitor communications networks using automated systems

All members of this job are AFSC 3C0X1 as can be seen in Table 4. Their predominant paygrade is E-4 and most are located within AF Space Command. Average TAFMS for incumbent performing this job is about 7 years and 10 months.

XIII. QUALITY CONTROL JOB (STG508). The 34 members of the Quality Control Job spend the majority of their time performing tasks in Duty N, *Performing Software Testing, Quality Assurance, or Configuration Management Activities* (shown in Table 3). Testing and reviewing seem to be the keywords for the tasks commonly performed by this group and most reported working in either a Test and Evaluation Unit or Quality Assurance. They reported performing an average of 55 tasks per person, which typically included the following.

- Test computer programs
- Review C-CS test plans
- Review C-CS test results
- Run validation or verification tests on C-CS
- Review C-CS input test data
- Analyze C-CS test results

Average TAFMS for these members is about 12 years (see Table 4), and most are in E-5 or E-6 paygrade. The most common MAJCOM is AFMC and about 65 percent are performing at the 5-skill level. Nine percent of these members are in AFSC 3C2X1 and the remaining 91 percent are AFSC 3C0X1.

XIV. MESSAGE DISTRIBUTION JOB (STG639). The 20 members performing this job tended to be junior in both paygrade and time in service. They also reported a very low average number of tasks performed, most of which are from Duty A, *Performing General Communications-Computer Systems Activities* (see Table 3). Typical tasks performed by this group include:

- Prepare unclassified media for mail, delivery, or distribution
- Distribute messages or output products
- Notify addressees or distribution centers of high precedence message receipts

Table 4 shows that the predominant paygrade for this group is E-3 and that most are performing at the 3-skill level. Average TAFMS is only about 3 years. This seems to indicate that this particular job is more of an entry-level position. Only one member of this group was AFSC 3C2X1.

XV. EQUIPMENT CUSTODIAN JOB (STG589). There were 56 members identified as performing the Equipment Custodian Job. As seen in Table 3, these members spend a huge amount of their time (70 percent) in Duty T, *Performing General Supply and Equipment Activities*. Some typical job titles are "Equipment Support Tech" and "Contract Monitor". They report working mainly in data base or resource management areas. Typically, they perform an average of 27 tasks that often include the following:

- Maintain equipment custodian accounts
- Establish or update inventory or stock control records
- Inventory equipment, tools, parts, or supplies
- Dispose of excess or unserviceable tools, parts, or supplies
- Establish or maintain hand receipt files

As indicated in Table 4, these members are mostly E-4s and E-5s. Only four percent are AFSC 3C2X1. Average TAFMS is approximately 10 years, and most are performing at the 5-skill level.

XVI. SWITCHBOARD OPERATOR JOB (STG640). The last job identified for this study was the Switchboard Operator Job. This job was so named, because of the large amount of time (76 percent) its members spend in Duty J, *Performing Nonmobile Telephone Switchboard Activities,* (see Table 3). As with the Message Distribution Job, members of this job tended to be junior in both time in service and paygrade. An average of 19 tasks are performed by these members and included the following.

- Place calls between subscriber, other than special handling calls
- Monitor high precedence or emergency calls
- Process telephone conference calls
- Connect calls according to precedence
- Maintain telephone directories

Members of this job group are mostly located in ACC and all are AFSC 3C0X1. Average TAFMS is about 2 ½ years and all members are paygrade E-3.

Summary

Combined, the majority of these two career ladders work mainly in the area of network administration. Tasks performed range from helpdesk activities such as resetting user passwords to maintaining network infrastructure and installing LANs. Separately, each has a fairly large contingent working in AFSC specific jobs. For the 3C2X1 career ladder, this is mainly the Tech Control Cluster (see Table 5). For the 3C0X1 career ladder this is the Telecommunications Cluster (members mainly tend to work in message distribution centers) and to some degree the C-CS Security Cluster as well as most of the miscellaneous jobs. It should be noted however, that even in the overlapping area of Network Administration, there was still a fairly large amount of discrimination between tasks performed by the AFSC 3C0X1 members and the 3C2X1 members.

TABLE 3
RELATIVE PERCENT TIME SPENT ON DUTIES
BY SPECIALTY CLUSTER

DUTIES		STG167 Network Admin Cluster (N=1,588)	STG255 Systems Admin Cluster (N=57)	STG365 Network Security Cluster (N=51)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	15	64	16
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	41	22	53
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	2	1	1
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	2	1	4
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	-	-
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	8	2	2
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	7	3	3
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	1	-	1
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	1	-	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	-	-	-
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	-	-	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	1	-	-
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	1	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	2	1	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	4	2	5
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	1	-	-
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	7	1	5
R	PERFORMING TRAINING ACTIVITIES	4	1	3
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	1	-	2
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	4	1	2

" - " indicates less than 1 percent

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES
BY SPECIALTY CLUSTER

DUTIES		STG291 Supervisor-Manager Cluster (N=429)	STG204 C-CS Security Cluster (N=408)	STG217 Tele-Comm Cluster (N=671)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	6	4	12
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	7	6	6
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	2	1	2
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	1	-	2
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	-	-
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	2	2	4
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	5	2	7
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	-	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	1	-	2
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	-	-	2
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	-	2	32
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-	-	-
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	2	-	-
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	4	42	16
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	1	2	1
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	41	19	6
R	PERFORMING TRAINING ACTIVITIES	12	6	2
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	5	6	2
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	8	5	2

" - " indicates less than 1 percent

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES
BY SPECIALTY CLUSTER

DUTIES		STG238 Tech Control Cluster (N=346)	STG272 Combat Comm Cluster (N=136)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	4	3
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	5	4
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	10	3
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	12	4
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	5	1
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	33	15
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	4	3
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	-	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	2	3
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	-	3
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	3	12
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	-	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	7	7
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	-	19
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	5	9
R	PERFORMING TRAINING ACTIVITIES	3	4
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	1	3
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	3	4

" - " indicates less than 1 percent

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES
BY SPECIALTY JOB

DUTIES		STG846 Formal Training Job (N=61)	STG646 Magnetic Media Job (N=34)	STG522 Mainframe Operator Job (N=36)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	4	11	12
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	9	9	2
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	-	1	2
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	-	-	5
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	0	-
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	1	2	3
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	3	17	41
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	1	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	0	30	13
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	-	-	-
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	0	-	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-	-	-
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	1	-	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	3	14	6
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	-	-	-
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	8	3	3
R	PERFORMING TRAINING ACTIVITIES	60	2	5
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	2	2	-
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	7	5	3

" - " indicates less than 1 percent

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES
BY SPECIALTY JOB

DUTIES		STG439 Systems Monitoring Job (N=34)	STG588 Quality Control Job (N=34)	STG639 Message Distribution Job (N=20)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	8	6	61
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	6	5	5
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	6	-	4
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	26	1	3
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	2	-	0
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	9	2	1
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	17	10	1
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	3	0
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	2	-	0
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	-	-	-
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	1	-	3
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-	-	0
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-	0
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	-	51	0
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	8	1	16
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	1	-	0
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	3	12	0
R	PERFORMING TRAINING ACTIVITIES	2	4	2
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	3	2	0
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	1	3

" - " indicates less than 1 percent

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES
BY SPECIALTY JOBS

DUTIES		STG589 Equipment Custodian Job (N=56)	STG640 Switch-Board Operator Job (N=17)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	6	2
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	2	-
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	-	5
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	-	-
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	0
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	-	2
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	3	5
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	0
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	-	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	0	76
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	-	0
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-	-
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	-	0
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	3	1
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	-	1
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	7	1
R	PERFORMING TRAINING ACTIVITIES	2	2
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	2	2
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	70	2

" - " indicates less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS

	STG167 Network Administration Cluster	STG255 Systems Administration Cluster	STG365 Network Security Cluster	STG291 Supervisor-Manager Cluster
NUMBER IN GROUP	1588	57	51	429
PERCENT OF SAMPLE	34	1	1	9
PERCENT IN CONUS	71	75	76	72
SKILL-LEVEL DISTRIBUTION:				
3C031	14	31	12	1
3C051	57	53	65	35
3C071	16	12	16	48
3C090	0	0	0	0
3C231	2	0	2	0
3C251	8	4	2	3
3C271	3	0	3	10
3C291	0	0	0	3
ADDITIONAL INFORMATION				
PREDOMINANT GRADE(S)	E-5/4	E-4	E-4/5	E-7
AVERAGE MONTHS IN CAREER FIELD	64	66	87	136
AVERAGE TAFMS	109	84	110	185
PERCENT WITH 1-48 MOS IN CAREER FIELD	38	60	38	21
PERCENT SUPERVISING	40	12	29	90
AVERAGE NUMBER OF TASKS PERFORMED	67	11	31	75

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS

	STG204 C-CS Security Cluster	STG217 Tele-Comm Cluster	STG238 Tech Control Cluster	STG272 Combat-Comm Cluster
NUMBER IN GROUP	408	671	346	136
PERCENT OF SAMPLE	9	14	7	3
PERCENT IN CONUS	64	64	52	71
SKILL-LEVEL DISTRIBUTION:				
3C031	10	33	2	3
3C051	50	61	2	28
3C071	36	5	1	15
3C090	0	0	0	1
3C231	0	0	26	13
3C251	1	1	60	29
3C271	3	0	9	11
3C291	0	0	0	0
ADDITIONAL INFORMATION				
PREDOMINANT GRADE(S)	E-5	E-4	E-4	E-5
AVERAGE MONTHS IN CAREER FIELD	113	61	72	88
AVERAGE TAFMS	145	77	91	118
PERCENT WITH 1-48 MOS IN CAREER FIELD	26	58	48	32
PERCENT SUPERVISING	54	37	39	49
AVERAGE NUMBER OF TASKS PERFORMED	78	83	128	192

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	STG846 Formal Training Job	STG646 Magnetic Media Job	STG522 Mainframe Operator Job	STG439 Systems Monitoring Job
NUMBER IN GROUP	61	34	36	18
PERCENT OF SAMPLE	1	1	1	-
PERCENT IN CONUS	85	79	75	78
SKILL-LEVEL DISTRIBUTION:				
3C031	2	56	36	28
3C051	57	44	61	50
3C071	20	0	3	17
3C090	0	0	0	0
3C231	0	0	0	0
3C251	10	0	0	0
3C271	11	0	0	0
3C291	0	0	0	5
ADDITIONAL INFORMATION				
PREDOMINANT GRADE(S)	E-5	E-4/3	E-4	E-4
AVERAGE MONTHS IN CAREER FIELD	127	56	51	59
AVERAGE TAFMS	147	60	56	94
PERCENT WITH 1-48 MOS IN CAREER FIELD	8	67	64	61
PERCENT SUPERVISING	15	15	19	17
AVERAGE NUMBER OF TASKS PERFORMED	35	55	53	34

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	STG588 Quality Control Job	STG639 Message Distribution Job	STG589 Equipment Custodian Job	STG640 Switch-Board Operator Job
NUMBER IN GROUP	34	20	56	17
PERCENT OF SAMPLE	1	1	1	-
PERCENT IN CONUS	94	80	82	94
SKILL-LEVEL DISTRIBUTION:				
3C031	6	55	24	71
3C051	59	40	54	29
3C071	26	0	18	0
3C090	0	0	0	0
3C231	0	0	0	0
3C251	3	5	0	0
3C271	6	0	4	0
3C291	0	0	0	0
ADDITIONAL INFORMATION				
PREDOMINANT GRADE(S)	E-5	E-3	E-4	E-3
AVERAGE MONTHS IN CAREER FIELD	124	32	85	27
AVERAGE TAFMS	143	37	110	30
PERCENT WITH 1-48 MOS IN CAREER FIELD	15	80	43	88
PERCENT SUPERVISING	44	10	21	12
AVERAGE NUMBER OF TASKS PERFORMED	55	11	27	19

TABLE 5

COMPARISON OF DAFSC 3C0X1AND 3C2X1 MEMBERS
ACROSS SPECIALTY JOBS AND CLUSTERS
(PERCENT RESPONDING)

SPECIALTY JOBS	DAFSC 3C0X1 (N=3,825)	DAFSC 3C2X1 (N=877)
Network Administration Cluster	36	25
Systems Administration Cluster	1	-
Network Security Cluster	1	1
Supervisor/Manager Cluster	9	8
Communications-Computer Systems Security Cluster	10	2
Telecommunications Cluster	17	1
Tech Control Cluster	1	37
Combat Communications Cluster	2	8
Formal Trainer Job	1	2
Magnetic Media Job	1	-
Mainframe Operator Job	1	-
Systems Monitor Job	-	-
Quality Control Job	1	-
Message Distribution Job	1	-
Equipment Control Job	1	-
Switchboard Operator Job	-	-
Not Grouped	16	15

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as the AFMAN 36-2108 Airman Classification, Specialty Description and the Career Field Education and Training Plan (CFETP), reflect what career ladder personnel are actually doing in the field.

A typical pattern of progression is noted within the AFSC 3C0X1 and 3C2X1 career ladders. AFSC 3C0X1 Personnel at the 3-skill level work mostly in either the Telecommunications Cluster or the Network Administration Cluster of the career ladder and spend most of their time on technical tasks. DAFSC 3C231s work mainly in Tech Control activities with a notable amount doing network administration type activities. As the 3C0X1s progress to the 5-skill level, there is a shift away from telecommunications activities and towards more network administration type jobs. For 3C2X1s, there is a slight shift into more network administration type activities. As 3C0X1 incumbents move up to the 7-skill level they perform more supervisory and management tasks and spend less time performing these technical tasks. However, this movement to management and training is not as pronounced as in some other career fields. There is also a noticeable movement toward network security type activities at the 7-skill level for the 3C0X1s. Similarly, the 3C2X1s move toward the supervisory and management type positions as they progress. There is also a movement away from strict controller type activities to more network administration activities.

AFSC 3C0X1 Skill-Level Descriptions

DAFSC 3C031. Representing 19 percent of the 3C0X1 survey sample, these 716 AD airmen perform an average of 50 tasks. As seen in table 6, the majority of this group (61 percent) work in either the Network Administration Cluster or the Telecommunications Cluster. The next largest group, at only 5 percent, work in the Communications-Computer Systems Security Cluster performing either COMSEC or computer systems security type activities. Representative tasks performed by these members are listed in Table 7 with "assist users in resolving computer software malfunctions or problems" being the most commonly performed task.

DAFSC 3C051. The 2,275 members of this group account for 59 percent of the 3C0X1 survey sample and represent the core of the career ladder. They perform an average of 63 tasks. Most of these airmen (40 percent) work in the Network Administration Cluster (see Table 6). Another 18 percent perform within the Telecommunications Cluster and the rest are scattered with a notable nine percent in C-CS Security Cluster. Another change from the 3-skill level is the seven percent now performing within the Manager/Supervisor Cluster. Representative tasks are presented in Table 8 with "assist users in resolving computer software malfunctions or problems" easily being the most performed task at 60 percent.

Shown in Table 9 is the difference between this group and the 3-skill level group. The contrast is minimal with the 5-skill level members performing only supervisory and training type tasks notably more, as could be expected.

DAFSC 3C071. These 832 members perform an average of 78 tasks and represent 22 percent of the survey sample. Table 6 shows 25 percent of these members in the Supervisor/Manager Cluster, however, 30 percent of the 7-skill level members still remain in the Network Administration Cluster. This indicates that members within this career ladder continue to be highly technically oriented even at the higher skill levels. It should be noted, however, that the most commonly performed tasks for this skill level (shown in Table 10) are supervisory and management type tasks.

Table 11 shows the tasks that best distinguish between DAFSC 3C051 members and 3C071 members. As one can see, no tasks noticeably favor the 3C051 members and only supervisory and management type tasks favor the 7-skill level members. This is typical of many career ladders.

DAFSC 3C090. Because of a very low response rate (only 2 members responding), no data from this skill level will be included in this study.

AFSC 3C2X1 Skill-Level Descriptions

DAFSC 3C231. Within the 3C2X1 survey sample, DAFSC 3C231 members account for about 20 percent of the total group. Members performing at this skill level perform an average of 94 tasks. Examining Table 12, one can see that a very large (52) percent of these members are performing within the Tech Control Cluster. The next largest percent (22) is found in the Network Administration Cluster. The only other notable work area for these members would be the Combat Communications Cluster within which 10 percent of this group is found. Table 13 shows that the most performed task is perform bit error rate tests (BERTs) on digital circuits or equipment. Note, however, that while this task is within Duty D, *Performing Circuit Monitoring and Analysis Activities*, most of the most commonly performed tasks fall within Duty F, *Maintaining Telecommunications Systems*.

DAFSC 3C251. The 5-skill level respondents of the C-CS Controllers career ladder represent about 55 percent of the total sample. These 478 members perform an average of 105 tasks and as seen in Table 12, are found mostly (43 percent) within the Tech Control Cluster. Another large 26 percent are found performing jobs from within the Network Administration Cluster. At this skill level, there is also a very slight (3 percent) shift into the Supervisor/Manager Cluster. Perform fault isolation on modems is the most commonly performed task for these members and similar to the 3-skill level members, most of the common tasks are found within Duty F.

Table 15 shows tasks that best distinguish between DAFSC 3C231 and 3C251 members. As is often the case, no tasks favor the 3-skill level members, while mostly supervisory and training type tasks favor the 5-skill level members.

DAFSC 3C271. The 210 members of this group represent about 24 percent of the entire 3C2X1 survey sample. Average number of tasks performed by 7-skill level respondents is 102. In Table 12, one can see that unlike the 3- and 5-skill level groups, these members are mostly located within the Network Administration Cluster. The next largest percent (21) are located within the Supervisor/Manager Cluster. This seems to show a move away from strict Tech Control type activities as members move higher in skill level. Table 16 shows supervisory and management type tasks the most commonly performed within this group with also a few network administration activities being commonly performed.

Table 17 illustrates the tasks which best differentiate between 5- and 7-skill level members of the 3C2X1 career ladder. Only a few technical tasks favor the DAFSC 3C251 members, while a large number of supervisory and management tasks favor the 7 skill level members.

DAFSC 3C291. There are 17 DAFSC 3C291 respondents within the survey sample. This represented about 2 percent of the total sample. These members reported performing an average of 55 tasks. Table 12 shows that the greatest number of these members is performing within the Supervisor/Manager Cluster, as would be expected. Table 18 gives a more in-depth look at where these members are spending their time. Duties Q, R, S, and T are all the most highly performed. Table 19 gives the representative tasks performed by these members. High level supervisory and management type tasks are all the most commonly performed.

The differences between DAFSC 3C271 and 3C291 members are shown in Table 20. The 7-skill level members seem to be more training and technically oriented, while the 9-skill level members perform high level supervisory and management tasks to a higher degree.

Comparison

Table 21 begins a comparison of these two career ladders with an examination of the relative time spent on duties by DAFSC 3C031 members and their 3C231 counterparts. At this level, the largest part of the 3C031 members time (20 percent) is spent performing tasks within the network management and administration duty, with another 16 percent of their time spent in the general C-CS activities duty. Also of note is the 13 percent spent in telecommunications traffic analysis area and the 12 percent in the C-CS security area. In contrast, DAFSC 3C231 members spend the greatest percentage of their time (30 percent) performing tasks related to maintaining telecommunication systems. Other areas where they spend a large amount of time include network administration and management (Duty B) and circuit monitoring and analysis (Duty D). Unlike 3C0X1 members, they spend very little time in telecommunication traffic analysis and much less time performing general C-CS activities. Table 22 differentiates tasks performed by these two groups. Tasks that highly favor 3C0X1 members mainly include message distribution and classification type tasks, while tasks that favor 3C2X1s include circuit monitoring and maintenance activities.

Table 23 once again shows the disparity between these career ladders. The most time spent by DAFSC 3C051 members (23 percent) is in network management and administration. Another large percentage is in performing general C-CS activities and C-CS security activities (13 and 11

percent respectively). As compared to the 3C0X1 3-skill level, there is also relatively much more time spent performing supervisory and management activities. DAFSC 3C251 members spend the majority of their time performing tasks from Duty F. They also spend a fairly large amount of time in Duty B, which is where the greatest amount of overlap occurs between these two career ladders. In Table 24, tasks that differentiate the two groups are shown. The only tasks that highly favor 3C0X1 members are certain helpdesk type activities, while circuit monitoring and maintenance activities very highly favor the 3C2X1 members.

At the 7-skill level is where the greatest amount of overlap between these career ladders occurs. This is because of a movement in both out of technical type activities and into more supervisory, management, and administrative type areas. Duties Q, R, S, and T, in Table 25 show this movement. Upon examining Table 26, as with the 5-skill levels, only a few tasks highly favor 3C0X1 members and mostly circuit monitoring and maintenance and even some modem monitoring and maintenance highly favor 3C2X1 7-skill levels.

Summary

Progression in the Communications-Computer Systems Operator and Controller career ladders follows a regular pattern of highly technical job focus at the 3-skill level, with a slight broadening into supervision and management at the 5-skill level, and a much greater jump into supervision and management at the 7-skill level. A 9-skill level also exists for the 3C2X1 career ladder and members of this group spend nearly all their time performing high level supervision and management activities. AFSC 3C0X1 members have no dedicated 9-skill levels and only two 3C090 respondents, therefore, they are not covered in this report.

TABLE 6

DISTRIBUTION OF DAFSC 3C0X1 GROUP MEMBERS
ACROSS SPECIALTY JOBS AND CLUSTERS
(PERCENT RESPONDING)

SPECIALTY JOBS	DAFSC 3C031 (N=716)	DAFSC 3C051 (N=2,275)	DAFSC 3C071 (N=832)
Network Administration Cluster	30	40	30
Systems Administration Cluster	3	1	-
Network Security Cluster	1	2	1
Supervisor/Manager Cluster	-	7	25
Communications-Computer Systems Security Cluster	5	9	17
Telecommunications Cluster	31	18	4
Tech Control Cluster	1	-	-
Combat Communications Cluster	-	2	3
Formal Trainer Job	-	2	1
Magnetic Media Job	3	-	0
Mainframe Operator Job	2	1	-
Systems Monitor Job	-	-	-
Quality Control Job	-	1	1
Message Distribution Job	2	-	0
Equipment Control Job	2	1	1
Switchboard Operator Job	2	-	0
Not Grouped	15	15	15

" - " indicates less than 1 percent

TABLE 7

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C031 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=716)
A0006	Assist users in resolving computer software malfunctions or problems	53
A0030	Respond to inquiries from customers, such as computer job or message status	48
B0036	Answer trouble calls from end users dealing with network outages	46
O0605	Escort visitors through facilities	43
A0012	Distribute messages or output products	42
B0072	Reset account passwords for network users	40
A0005	Assist customers in preparation of help desk requests	39
O0636	Witness destruction of classified materials	39
O0602	Destroy or dispose of classified or sensitive unclassified materials	39
G0353	Perform communications-computer systems startup or shutdown procedures	39
O0634	Store or safeguard classified materials	38
B0079	Troubleshoot e-mail problems at user level	37
G0352	Perform communications-computer systems equipment power-on or power-off procedures	37
A0028	Prepare unclassified media for mail, delivery, or distribution	36
B0080	Troubleshoot network log-ons for end users	35
B0044	Create and modify existing network accounts	34
O0604	Distribute classified materials	34
A0009	Configure operating systems, such as UNIX or NT Server	33
A0026	Notify addressees or distribution centers of high precedence message receipt	33
O0635	Verify access to restricted or controlled areas or classified materials	33
T0807	Perform general housekeeping duties	32
O0609	Inventory classified or communications security (COMSEC) materials	32
K0454	Stamp messages with special handling, precedence, or classification	32
K0451	Respond to service messages	32
K0446	Prepare service actions on messages, such as misrouted, garbled, incomplete, or interlaced	32
G0357	Perform recovery procedures on communications-computer systems	32
B0054	Install network software for end users	30
K0453	Separate incoming messages for distribution	30
K0438	Inspect message forms for releasing authority, classification, precedence, date-time group, or special instructions	30
K0437	Follow up on service messages	30
A0020	Install computer hardware for end users	29
K0440	Maintain service message logs or files	29
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	29
K0442	Perform alternate routing of message traffic	29
G0356	Perform or practice communications-computer systems emergency procedures	29
B0039	Configure network software for end users	28
B0077	Troubleshoot connectivity problems from servers to workstations	28
K0452	Retrieve messages manually	28
O0613	Maintain visitor registers	28
K0462	Review messages for accuracy or proper handling	27
R0734	Conduct on-the-job training (OJT)	27

Average Number of Tasks Performed = 50

TABLE 8

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C051 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=2,275)
A0006	Assist users in resolving computer software malfunctions or problems	60
B0036	Answer trouble calls from end users dealing with network outages	50
A0009	Configure operating systems, such as UNIX or NT Server	49
R0734	Conduct on-the-job training (OJT)	47
O0605	Escort visitors through facilities	46
B0072	Reset account passwords for network users	44
T0807	Perform general housekeeping duties	44
A0030	Respond to inquiries from customers, such as computer job or message status	42
B0044	Create and modify existing network accounts	41
B0079	Troubleshoot e-mail problems at user level	40
B0080	Troubleshoot network log-ons for end users	40
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	40
A0020	Install computer hardware for end users	39
B0039	Configure network software for end users	38
B0054	Install network software for end users	38
G0353	Perform communications-computer systems startup or shutdown procedures	38
A0005	Assist customers in preparation of help desk requests	37
B0077	Troubleshoot connectivity problems from servers to workstations	37
O0602	Destroy or dispose of classified or sensitive unclassified materials	36
G0352	Perform communications-computer systems equipment power-on or power-off procedures	36
O0634	Store or safeguard classified materials	35
O0636	Witness destruction of classified materials	35
B0082	Troubleshoot server outages	33
R0735	Counsel trainees on training progress	32
Q0692	Counsel subordinates concerning personal matters	32
S0772	Participate in alerts or recalls	32
B0056	Install and configure network servers	31
R0746	Maintain training records or files	31
O0635	Verify access to restricted or controlled areas or classified materials	31
B0066	Open trouble tickets and assign to appropriate workcenters	30
A0012	Distribute messages or output products	30
O0609	Inventory classified or communications security (COMSEC) materials	30
B0083	Upgrade existing network server software	30
Q0727	Write or indorse military performance reports	30
B0038	Build network servers	29
B0065	Monitor network resources	29
G0342	Load operating systems	29
B0068	Perform tape backups of network servers	29
A0004	Analyze statistical data, such as systems availability, user log-ons, or traffic data	29
B0052	Implement existing network server software	28
R0744	Evaluate progress of trainees	28
Q0694	Determine or establish work assignments or priorities	28

Average Number of Tasks Performed = 63

TABLE 9

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C031 AND 3C051 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C031 (N=716)	DAFSC 3C051 (N=2,275)	DIFF
Q0692	Counsel subordinates concerning personal matters	3	32	-29
Q0727	Write or indorse military performance reports	1	30	-28
Q0728	Write recommendations for awards or decorations	1	28	-27
Q0689	Conduct supervisory performance feedback sessions	2	28	-27
Q0715	Inspect personnel for compliance with military standards	2	28	-26
Q0709	Evaluate personnel for compliance with performance standards	2	28	-26
R0735	Counsel trainees on training progress	6	32	-26
Q0716	Interpret policies, directives, or procedures for subordinates	2	25	-24
R0744	Evaluate progress of trainees	6	28	-23
Q0705	Establish performance standards for subordinates	1	24	-23
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	1	24	-23
Q0694	Determine or establish work assignments or priorities	4	28	-23
R0746	Maintain training records or files	9	31	-22
R0734	Conduct on-the-job training (OJT)	27	47	-20
R0736	Determine training requirements	4	25	-20
Q0699	Develop or establish work methods or procedures	6	25	-19
R0731	Brief personnel concerning training programs or matters	5	24	-19
Q0691	Conduct supervisory orientations for newly assigned personnel	2	22	-19
Q0714	Initiate actions required due to substandard performance of personnel	1	18	-18

TABLE 10

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C071 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=832)
Q0727	Write or indorse military performance reports	65
Q0728	Write recommendations for awards or decorations	65
Q0692	Counsel subordinates concerning personal matters	65
Q0709	Evaluate personnel for compliance with performance standards	64
Q0694	Determine or establish work assignments or priorities	63
Q0689	Conduct supervisory performance feedback sessions	63
Q0716	Interpret policies, directives, or procedures for subordinates	62
Q0715	Inspect personnel for compliance with military standards	62
Q0705	Establish performance standards for subordinates	57
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	57
R0734	Conduct on-the-job training (OJT)	55
R0746	Maintain training records or files	55
Q0691	Conduct supervisory orientations for newly assigned personnel	55
A0006	Assist users in resolving computer software malfunctions or problems	54
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	53
R0736	Determine training requirements	53
R0735	Counsel trainees on training progress	53
Q0687	Conduct self-inspections or self-assessments	53
Q0699	Develop or establish work methods or procedures	52
Q0722	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	52
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	51
Q0700	Develop or establish work schedules	51
A0009	Configure operating systems, such as UNIX or NT Server	48
R0744	Evaluate progress of trainees	48
T0807	Perform general housekeeping duties	48
O0605	Escort visitors through facilities	48
Q0724	Write job or position descriptions	48
R0731	Brief personnel concerning training programs or matters	47
Q0714	Initiate actions required due to substandard performance of personnel	47
Q0684	Assign personnel to work areas or duty positions	46
S0772	Participate in alerts or recalls	45
Q0712	Implement safety or security programs	43
Q0693	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	43
R0738	Develop training programs, plans, or procedures	42
B0036	Answer trouble calls from end users dealing with network outages	41
Q0729	Write replies to inspection reports	41
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	40
S0756	Maintain administrative files	38
O0634	Store or safeguard classified materials	38
A0020	Install computer hardware for end users	37

Average Number of Tasks Performed = 78

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C051 AND 3C071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C051 (N=2,275)	DAFSC 3C071 (N=832)	DIFF
Q0716	Interpret policies, directives, or procedures for subordinates	25	62	-37
Q0728	Write recommendations for awards or decorations	28	65	-37
Q0724	Write job or position descriptions	12	48	-36
Q0694	Determine or establish work assignments or priorities	28	63	-36
Q0722	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	15	52	-36
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	16	53	-36
Q0689	Conduct supervisory performance feedback sessions	28	63	-35
Q0727	Write or indorse military performance reports	30	65	-35
Q0709	Evaluate personnel for compliance with performance standards	28	64	-35
Q0715	Inspect personnel for compliance with military standards	28	62	-34
Q0692	Counsel subordinates concerning personal matters	32	65	-34
Q0705	Establish performance standards for subordinates	24	57	-33
Q0691	Conduct supervisory orientations for newly assigned personnel	22	55	-33
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	24	57	-33
Q0685	Assign sponsors for newly assigned personnel	7	39	-32
Q0684	Assign personnel to work areas or duty positions	14	46	-32
Q0687	Conduct self-inspections or self-assessments	22	53	-31
Q0729	Write replies to inspection reports	11	41	-30
Q0700	Develop or establish work schedules	21	51	-30
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	22	51	-29
Q0693	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	14	43	-29
Q0701	Draft budget requirements	6	35	-29
Q0699	Develop or establish work methods or procedures	25	52	-28
Q0721	Review drafts of supplements or changes to directives, such as policy directives, instructions, or manuals	8	36	-28

TABLE 12

DISTRIBUTION OF DAFSC 3C2X1 GROUP MEMBERS
ACROSS SPECIALTY JOBS AND CLUSTERS
(PERCENT RESPONDING)

SPECIALTY JOBS	DAFSC 3C231 (N=172)	DAFSC 3C251 (N=478)	DAFSC 3C271 (N=210)	DAFSC 3C291 (N=17)
Network Administration Cluster	22	26	25	6
Systems Administration Cluster	0	-	0	0
Network Security Cluster	-	-	1	0
Supervisor/Manager Cluster	0	3	21	71
Communications-Computer Systems Security Cluster	0	1	6	0
Telecommunications Cluster	0	1	0	0
Tech Control Cluster	52	43	15	0
Combat Communications Cluster	10	8	7	0
Formal Trainer Job	0	1	3	0
Magnetic Media Job	0	0	0	0
Mainframe Operator Job	0	0	0	0
Systems Monitor Job	0	0	0	6
Quality Control Job	0	-	1	0
Message Distribution Job	0	-	0	0
Equipment Control Job	0	0	1	0
Switchboard Operator Job	0	0	0	0
Not Grouped	15	16	20	17

" - " indicates less than 1 percent

TABLE 13

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C231 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=172)
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	71
F0261	Perform digital circuit loop-backs	68
F0270	Perform fault isolation on digital circuits	67
B0036	Answer trouble calls from end users dealing with network outages	65
F0262	Perform equipment loop-backs	65
F0276	Perform fault isolation on modems	64
A0002	Analyze circuit, communications line, or equipment outage reports	60
J0411	Initiate loop-back tests	59
F0232	Fabricate cables	58
C0098	Label patch panels, equipment, or alternate routings	58
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	55
F0263	Perform fault isolation on analog circuits	55
D0154	Perform BERTs on modulator-demodulators (modems)	55
L0472	Check continuity of cables or in-house wiring	54
E0193	Perform block error rate tests or BERTs on high-speed data circuits	54
O0605	Escort visitors through facilities	53
F0310	Remove or replace modems	52
L0471	Check continuity between local technical controls and users	51
G0363	Test modems	51
B0081	Troubleshoot on-line circuit outages	50
F0254	Patch digital equipment	49
F0260	Perform cryptographic resynchronizations	49
F0223	Coordinate cryptographic synchronizations with distant ends	49
F0222	Coordinate cryptographic key changes with users	49
F0255	Patch digital lines	49
F0256	Perform audio channel loop-backs	49
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	48
F0245	Operate cryptographic equipment	48
L0470	Check continuity between local and distant technical controls	47
F0317	Restore high-speed data circuits	47
F0272	Perform fault isolation on fiber optic systems	47
F0216	Configure modems, other than circuit card assembly (CCA) data orderwire diphase modems	46
O0636	Witness destruction of classified materials	45
F0320	Wire-wrap cross-connects on distribution frames	45
B0066	Open trouble tickets and assign to appropriate workcenters	44
F0265	Perform fault isolation on cable systems	44
C0104	Maintain or prepare automated or manual DD Forms 1443 (Trouble and Restoration Record)	43
D0140	Identify types of standards, such as EIA * MILSTD 188-114	42
B0077	Troubleshoot connectivity problems from servers to workstations	41
T0807	Perform general housekeeping duties	41
F0238	Isolate faults to commercial interfaces (demarcs)	41
F0289	Perform operational checks of modems	41

Average Number of Tasks Performed = 94

TABLE 14

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C251 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=478)
F0276	Perform fault isolation on modems	66
F0270	Perform fault isolation on digital circuits	60
F0261	Perform digital circuit loop-backs	60
B0036	Answer trouble calls from end users dealing with network outages	59
F0262	Perform equipment loop-backs	59
F0232	Fabricate cables	58
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	57
F0310	Remove or replace modems	57
A0002	Analyze circuit, communications line, or equipment outage reports	55
C0098	Label patch panels, equipment, or alternate routings	54
R0734	Conduct on-the-job training (OJT)	52
T0807	Perform general housekeeping duties	51
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	51
O0605	Escort visitors through facilities	51
F0263	Perform fault isolation on analog circuits	50
D0154	Perform BERTs on modulator-demodulators (modems)	50
G0363	Test modems	49
B0081	Troubleshoot on-line circuit outages	48
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	47
F0260	Perform cryptographic resynchronizations	47
F0272	Perform fault isolation on fiber optic systems	47
L0472	Check continuity of cables or in-house wiring	46
F0317	Restore high-speed data circuits	46
D0140	Identify types of standards, such as EIA * MILSTD 188-114	46
F0289	Perform operational checks of modems	46
J0411	Initiate loop-back tests	45
F0255	Patch digital lines	45
F0245	Operate cryptographic equipment	45
F0254	Patch digital equipment	45
F0265	Perform fault isolation on cable systems	44
E0193	Perform block error rate tests or BERTs on high-speed data circuits	44
F0222	Coordinate cryptographic key changes with users	43
F0223	Coordinate cryptographic synchronizations with distant ends	43
C0108	Maintain or prepare circuit history folders	42
L0471	Check continuity between local technical controls and users	41
C0104	Maintain or prepare automated or manual DD Forms 1443 (Trouble and Restoration Record)	41
F0267	Perform fault isolation on computer network circuits, such as DSN or defense information systems network (DISN)	41
F0264	Perform fault isolation on bulk encryption equipment	41
F0238	Isolate faults to commercial interfaces (demarcs)	41
F0275	Perform fault isolation on LANs	40
O0636	Witness destruction of classified materials	40

Average Number of Tasks Performed = 105

TABLE 15

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C231 AND 3C251 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C231 (N=172)	DAFSC 3C251 (N=478)	DIFF
Q0692	Counsel subordinates concerning personal matters	1	36	-36
R0735	Counsel trainees on training progress	6	39	-33
Q0709	Evaluate personnel for compliance with performance standards	2	33	-31
Q0715	Inspect personnel for compliance with military standards	5	35	-30
Q0689	Conduct supervisory performance feedback sessions	1	30	-30
Q0728	Write recommendations for awards or decorations	1	29	-29
R0744	Evaluate progress of trainees	4	33	-29
Q0716	Interpret policies, directives, or procedures for subordinates	2	30	-28
R0746	Maintain training records or files	8	36	-28
Q0727	Write or indorse military performance reports	1	29	-28
Q0694	Determine or establish work assignments or priorities	7	34	-27
Q0705	Establish performance standards for subordinates	2	28	-26
Q0691	Conduct supervisory orientations for newly assigned personnel	1	26	-25
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	1	26	-25
R0734	Conduct on-the-job training (OJT)	27	52	-25
R0731	Brief personnel concerning training programs or matters	4	29	-25
R0736	Determine training requirements	5	29	-24
Q0699	Develop or establish work methods or procedures	2	24	-22
R0738	Develop training programs, plans, or procedures	7	29	-22
Q0700	Develop or establish work schedules	3	25	-22
Q0714	Initiate actions required due to substandard performance of personnel	1	22	-21

TABLE 16

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C271 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=210)
Q0715	Inspect personnel for compliance with military standards	67
Q0728	Write recommendations for awards or decorations	64
Q0716	Interpret policies, directives, or procedures for subordinates	61
Q0694	Determine or establish work assignments or priorities	61
Q0727	Write or indorse military performance reports	60
Q0709	Evaluate personnel for compliance with performance standards	60
R0736	Determine training requirements	59
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	59
Q0692	Counsel subordinates concerning personal matters	58
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	57
S0772	Participate in alerts or recalls	57
Q0705	Establish performance standards for subordinates	56
Q0689	Conduct supervisory performance feedback sessions	55
T0807	Perform general housekeeping duties	54
R0734	Conduct on-the-job training (OJT)	54
Q0693	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	54
R0731	Brief personnel concerning training programs or matters	53
Q0722	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	53
Q0691	Conduct supervisory orientations for newly assigned personnel	52
Q0714	Initiate actions required due to substandard performance of personnel	52
R0744	Evaluate progress of trainees	51
Q0687	Conduct self-inspections or self-assessments	51
R0735	Counsel trainees on training progress	51
Q0699	Develop or establish work methods or procedures	50
Q0724	Write job or position descriptions	49
R0738	Develop training programs, plans, or procedures	48
B0036	Answer trouble calls from end users dealing with network outages	47
Q0684	Assign personnel to work areas or duty positions	47
Q0700	Develop or establish work schedules	47
R0746	Maintain training records or files	46
Q0685	Assign sponsors for newly assigned personnel	46
B0045	Design technical solutions for new network requirements	45
Q0712	Implement safety or security programs	45
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	45
Q0729	Write replies to inspection reports	45
F0276	Perform fault isolation on modems	45
O0605	Escort visitors through facilities	44
Q0719	Review budget requirements	43
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	43
Q0706	Establish procedures for accountability of equipment, tools, parts, or supplies	43

Average Number of Tasks Performed = 102

TABLE 17

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C251 AND 3C271 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C251 (N=478)	DAFSC 3C271 (N=210)	DIFF
F0261	Perform digital circuit loop-backs	60	32	28
C0098	Label patch panels, equipment, or alternate routings	54	28	26
F0262	Perform equipment loop-backs	59	33	26
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	57	33	24
Q0722	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	14	53	-39
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	19	57	-38
Q0724	Write job or position descriptions	13	49	-36
Q0719	Review budget requirements	7	43	-36
Q0728	Write recommendations for awards or decorations	29	64	-35
Q0693	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	19	54	-35
Q0729	Write replies to inspection reports	11	45	-34
Q0685	Assign sponsors for newly assigned personnel	11	46	-34
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	12	45	-33
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	26	59	-33
Q0715	Inspect personnel for compliance with military standards	35	67	-32
Q0721	Review drafts of supplements or changes to directives, such as policy directives, instructions, or manuals	8	40	-32
Q0727	Write or indorse military performance reports	29	60	-31
Q0716	Interpret policies, directives, or procedures for subordinates	30	61	-31
Q0714	Initiate actions required due to substandard performance of personnel	22	52	-30
R0736	Determine training requirements	29	59	-30
Q0701	Draft budget requirements	7	37	-30
Q0713	Initiate personnel action requests	11	40	-29
Q0709	Evaluate personnel for compliance with performance standards	33	60	-28
Q0705	Establish performance standards for subordinates	28	56	-28

TABLE 18

RELATIVE PERCENT TIME SPENT ON DUTIES
BY DAFSC 3C291 MEMBERS

	DUTIES	DAFSC 3C291 (N=17)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	6
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	5
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	3
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	2
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	5
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	1
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	-
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	2
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	1
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	49
R	PERFORMING TRAINING ACTIVITIES	7
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	7
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	9

TABLE 19

REPRESENTATIVE TASKS PERFORMED
BY DAFSC 3C291 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=17)
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	82
Q0728	Write recommendations for awards or decorations	82
Q0694	Determine or establish work assignments or priorities	82
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	76
Q0716	Interpret policies, directives, or procedures for subordinates	76
Q0689	Conduct supervisory performance feedback sessions	76
Q0692	Counsel subordinates concerning personal matters	76
Q0727	Write or indorse military performance reports	71
Q0701	Draft budget requirements	71
Q0713	Initiate personnel action requests	71
Q0705	Establish performance standards for subordinates	71
Q0709	Evaluate personnel for compliance with performance standards	71
Q0691	Conduct supervisory orientations for newly assigned personnel	71
Q0719	Review budget requirements	71
Q0722	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	71
Q0693	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	71
Q0721	Review drafts of supplements or changes to directives, such as policy directives, instructions, or manuals	65
Q0724	Write job or position descriptions	65
Q0715	Inspect personnel for compliance with military standards	65
Q0684	Assign personnel to work areas or duty positions	65
Q0699	Develop or establish work methods or procedures	65
Q0725	Write staff studies, surveys, or routine reports, other than training or inspection reports	65
Q0714	Initiate actions required due to substandard performance of personnel	65
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	59
R0731	Brief personnel concerning training programs or matters	53
Q0703	Draft supplements or changes to directives, such as policy directives, instructions, or manuals	53
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	53
Q0685	Assign sponsors for newly assigned personnel	53
Q0695	Develop organizational or functional charts	53
O0605	Escort visitors through facilities	53
Q0687	Conduct self-inspections or self-assessments	47
Q0700	Develop or establish work schedules	47
Q0707	Evaluate inspection report findings or inspection procedures	47
Q0717	Investigate accidents or incidents	47
S0779	Write minutes of briefings, conferences, or meetings	41
T0807	Perform general housekeeping duties	41
S0772	Participate in alerts or recalls	41
C0093	Coordinate significant activities or events with communications support facilities	41
Q0718	Plan layouts of facilities	41

Average Number of Tasks Performed = 55

TABLE 20

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C271 AND 3C291 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C271 (N=210)	DAFSC 3C291 (N=17)	DIFF
R0734	Conduct on-the-job training (OJT)	54	12	42
F0276	Perform fault isolation on modems	45	6	39
F0270	Perform fault isolation on digital circuits	40	6	35
R0746	Maintain training records or files	46	12	34
G0363	Test modems	34	*	34
F0310	Remove or replace modems	39	6	33
T0793	Establish or maintain hand receipt files	32	*	32
T0799	Inventory equipment, tools, parts, or supplies	38	6	32
R0738	Develop training programs, plans, or procedures	48	18	30
F0232	Fabricate cables	41	12	30
R0736	Determine training requirements	59	29	30
F0289	Perform operational checks of modems	35	6	29
F0263	Perform fault isolation on analog circuits	29	*	29
F0268	Perform fault isolation on computer systems or associated peripherals	29	*	29
R0744	Evaluate progress of trainees	51	24	28
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	33	6	27
Q0725	Write staff studies, surveys, or routine reports, other than training or inspection reports	30	65	-34
Q0701	Draft budget requirements	37	71	-33
Q0713	Initiate personnel action requests	40	71	-31
Q0719	Review budget requirements	43	71	-28
Q0703	Draft supplements or changes to directives, such as policy directives, instructions, or manuals	26	53	-27
Q0721	Review drafts of supplements or changes to directives, such as policy directives, instructions, or manuals	40	65	-25
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	57	82	-25
Q0694	Determine or establish work assignments or priorities	61	82	-21
Q0689	Conduct supervisory performance feedback sessions	55	76	-21

TABLE 21

RELATIVE PERCENT TIME SPENT ON DUTIES
BY DAFSC 3C031/3C231 MEMBERS

DUTIES		DAFSC 3C031 (N=716)	DAFSC 3C231 (N=172)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	16	6
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	20	14
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	2	8
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	2	10
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	4
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	5	30
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	9	5
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	1	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	3	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	3	2
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	13	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	1	5
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	1
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	1	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	12	5
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	2	3
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	2	1
R	PERFORMING TRAINING ACTIVITIES	2	1
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	1	1
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	3

TABLE 22

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSCs 3C031 AND 3C231 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C031 (N=716)	DAFSC 3C231 (N=172)	DIFF
A0012	Distribute messages or output products	42	6	36
K0446	Prepare service actions on messages, such as misrouted, garbled, incomplete, or interlaced	32	1	31
A0026	Notify addressees or distribution centers of high precedence message receipt	33	3	30
O0604	Distribute classified materials	34	4	30
K0454	Stamp messages with special handling, precedence, or classification	32	2	29
K0453	Separate incoming messages for distribution	30	2	28
K0451	Respond to service messages	32	4	28
A0028	Prepare unclassified media for mail, delivery, or distribution	36	9	28
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	2	71	-69
F0270	Perform fault isolation on digital circuits	2	67	-65
F0261	Perform digital circuit loop-backs	8	68	-60
F0276	Perform fault isolation on modems	6	64	-58
F0262	Perform equipment loop-backs	10	65	-55
F0263	Perform fault isolation on analog circuits	1	55	-54
D0154	Perform BERTs on modulator-demodulators (modems)	1	55	-54
E0193	Perform block error rate tests or BERTs on high-speed data circuits	1	54	-53
L0472	Check continuity of cables or in-house wiring	3	54	-51
J0411	Initiate loop-back tests	9	59	-51
F0232	Fabricate cables	7	58	-51
C0098	Label patch panels, equipment, or alternate routings	7	58	-50
L0471	Check continuity between local technical controls and users	2	51	-48
F0256	Perform audio channel loop-backs	2	49	-47
F0255	Patch digital lines	3	49	-46
F0254	Patch digital equipment	3	49	-46
F0320	Wire-wrap cross-connects on distribution frames	1	45	-45
L0470	Check continuity between local and distant technical controls	2	47	-45
F0272	Perform fault isolation on fiber optic systems	3	47	-44

TABLE 23

RELATIVE PERCENT TIME SPENT ON DUTIES
BY DAFSC 3C051/3C251 MEMBERS

DUTIES		DAFSC 3C051 (N=2,275)	DAFSC 3C251 (N=478)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	13	6
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	23	14
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	1	7
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	2	8
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	3
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	5	25
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	8	4
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	1	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	1	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	1	2
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	6	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	1	3
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	2	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	11	6
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	2	3
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	9	7
R	PERFORMING TRAINING ACTIVITIES	6	5
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	2	2
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	6	4

TABLE 24

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 3C051 AND 3C251 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C051 (N=2,275)	DAFSC 3C251 (N=478)	DIFF
B0072	Reset account passwords for network users	44	18	26
A0006	Assist users in resolving computer software malfunctions or problems	60	37	23
B0044	Create and modify existing network accounts	41	19	22
A0009	Configure operating systems, such as UNIX or NT Server	49	27	22
F0270	Perform fault isolation on digital circuits	3	60	-56
F0261	Perform digital circuit loop-backs	6	60	-55
F0276	Perform fault isolation on modems	11	66	-55
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	2	57	-55
F0262	Perform equipment loop-backs	9	59	-50
D0154	Perform BERTs on modulator-demodulators (modems)	2	50	-48
F0263	Perform fault isolation on analog circuits	3	50	-47
C0098	Label patch panels, equipment, or alternate routings	10	54	-44
F0317	Restore high-speed data circuits	2	46	-44
F0232	Fabricate cables	13	58	-44
D0140	Identify types of standards, such as EIA 232 MILSTD 188-114	2	46	-44
F0255	Patch digital lines	3	45	-43
L0472	Check continuity of cables or in-house wiring	4	46	-43
F0310	Remove or replace modems	16	57	-42
F0272	Perform fault isolation on fiber optic systems	5	47	-42
E0193	Perform block error rate tests or BERTs on high-speed data circuits	2	44	-42
F0254	Patch digital equipment	2	45	-42
F0265	Perform fault isolation on cable systems	3	44	-41
L0471	Check continuity between local technical controls and users	1	41	-40
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	11	51	-40
C0104	Maintain or prepare automated or manual DD Forms 1443 (Trouble and Restoration Record)	1	41	-40
C0108	Maintain or prepare circuit history folders	2	42	-40
F0320	Wire-wrap cross-connects on distribution frames	1	39	-39

TABLE 25

RELATIVE PERCENT TIME SPENT ON DUTIES
BY DAFSC 3C071/3C271 MEMBERS

	DUTIES	DAFSC 3C071 (N=832)	DAFSC 3C271 (N=210)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	9	6
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	16	12
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	1	4
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	1	4
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	1
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	3	11
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	4	2
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	1	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	-	-
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	2	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-	2
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	2	2
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	10	5
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	2	2
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	27	23
R	PERFORMING TRAINING ACTIVITIES	9	10
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	4	5
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	7	8

TABLE 26

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSCs 3C071 AND 3C271 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 3C071 (N=832)	DAFSC 3C271 (N=210)	DIFF
A0006	Assist users in resolving computer software malfunctions or problems	54	32	22
A0009	Configure operating systems, such as UNIX or NT Server	48	29	19
F0270	Perform fault isolation on digital circuits	3	40	-38
F0276	Perform fault isolation on modems	10	45	-35
D0140	Identify types of standards, such as EIA 232 MILSTD 188-114	3	37	-34
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	2	33	-32
F0232	Fabricate cables	12	41	-30
F0261	Perform digital circuit loop-backs	4	32	-28
F0263	Perform fault isolation on analog circuits	2	29	-27
D0154	Perform BERTs on modulator-demodulators (modems)	2	30	-27
F0289	Perform operational checks of modems	9	35	-26
F0267	Perform fault isolation on computer network circuits, such as DSN or defense information systems network (DISN)	3	30	-26
F0220	Coordinate circuit releases with subscribers	1	26	-25
F0272	Perform fault isolation on fiber optic systems	4	30	-25
F0262	Perform equipment loop-backs	7	33	-25
C0096	Implement activation or changes of circuits	4	28	-24
F0265	Perform fault isolation on cable systems	4	28	-24
L0472	Check continuity of cables or in-house wiring	3	27	-24
F0254	Patch digital equipment	3	27	-24
C0108	Maintain or prepare circuit history folders	2	26	-24
G0363	Test modems	10	34	-24
F0310	Remove or replace modems	15	39	-24
F0255	Patch digital lines	3	26	-23
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	9	30	-22
F0317	Restore high-speed data circuits	2	24	-22

TRAINING ANALYSIS

Occupational survey data are one of many sources of information that can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. There are several factors that may be used in evaluating training. One of these factors is an overall description of the work being performed by first-enlistment personnel, as well as their overall distribution across career ladder jobs. Also, the percentages of first-enlistment (1-48 months TAFMS) members performing specific tasks and the TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section) associated with these tasks may be useful as well.

First-Enlistment Personnel

In this study, there are 1,045 AFSC 3C0X1 members in their first enlistment (1-48 months TAFMS), representing 27 percent of the total 3C0X1 survey sample. There are also 273 AFSC 3C2X1 members in their first enlistment representing 31 percent of their survey sample. Figures 2 and 3 show the job distribution of first-enlistment personnel and Table 27 displays the relative percent of time spent on duties by these airmen.

Reviewing Table 27, it is evident that 3C0X1 first-enlistment personnel spend most of their time (22 percent) performing network management and administration related tasks. The next largest amount of time they spend is on general C-CS duties with telecommunications traffic analysis and C-CS security activities closely following. They are also about evenly split between the Network Administration Cluster and the Telecommunications Cluster (Figure 2). Conversely, AFSC 3C2X1 first-enlistment personnel spend much more time maintaining telecommunications systems as is also shown in Table 27 performing circuit monitoring and analysis activities. They are primarily employed in the Tech Control Cluster with a fairly large percent in the Network Administration Cluster as well.

Tables 28 and 29 list representative tasks performed by first-enlistment personnel. As shown, AFSC 3C0X1 members commonly perform many help desk type tasks as well as some network administration. There are also several tasks shown that seem to be related to message distribution centers. Most of the commonly performed tasks accomplished by 3C2X1 members involve circuit monitoring and maintenance of telecommunications systems. Of note is the difference in the average number of tasks performed by the 3C0X1 members (49) as opposed to the 3C2X1 members (95). This seems to indicate that the 3C2X1 first-enlistment personnel perform a greater diversity of tasks than do AFSC 3C0X1 first-enlistment personnel.

AFSC 3C0X1 CAREER LADDER SPECIALTY JOBS
By First Enlistment Personnel (1-48 MOS TAFMS)
(N = 1,045)

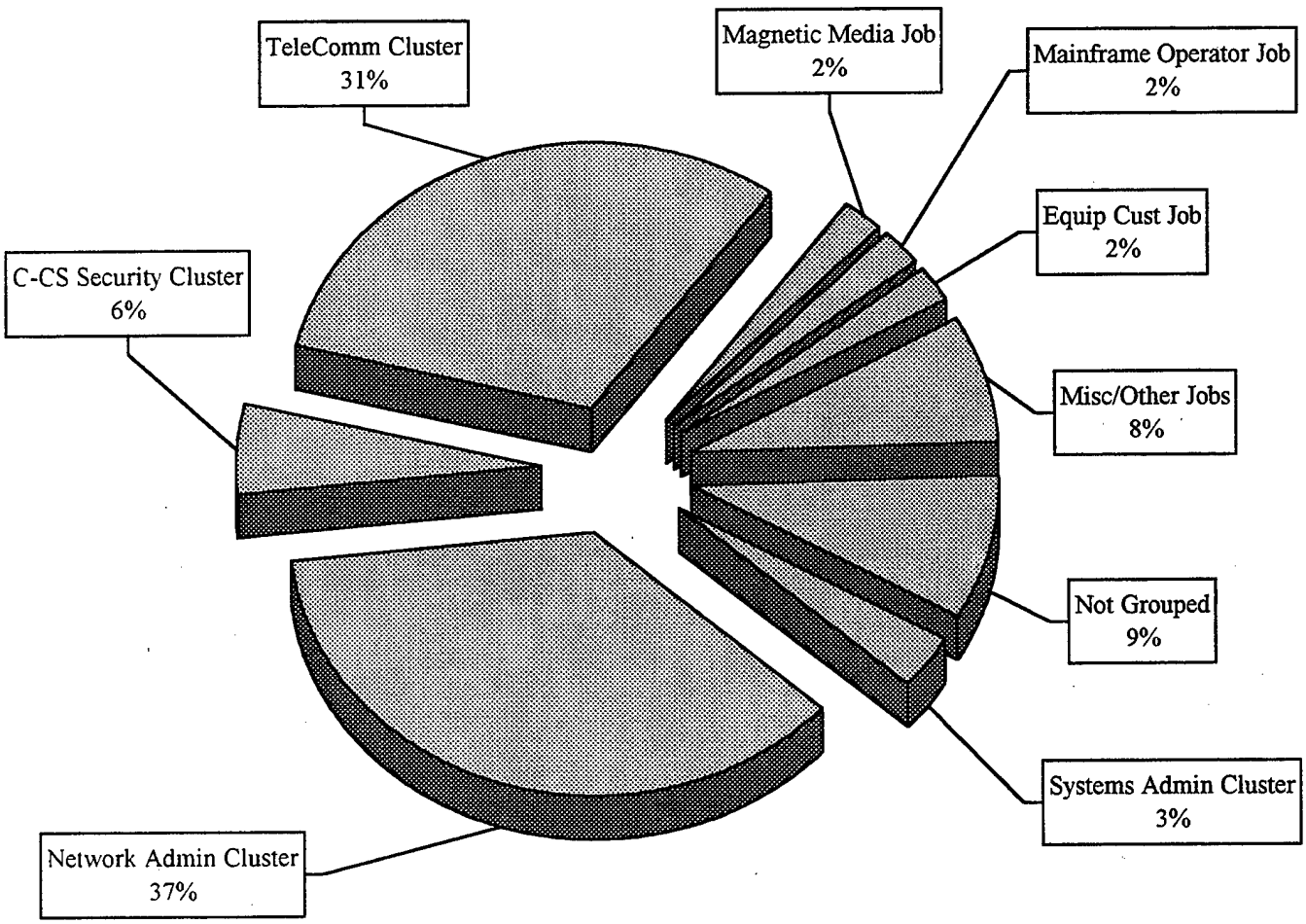


FIGURE 2

AFSC 3C2X1 CAREER LADDER SPECIALTY JOBS
By First Enlistment Personnel (1-48 MOS TAFMS)
(N = 273)

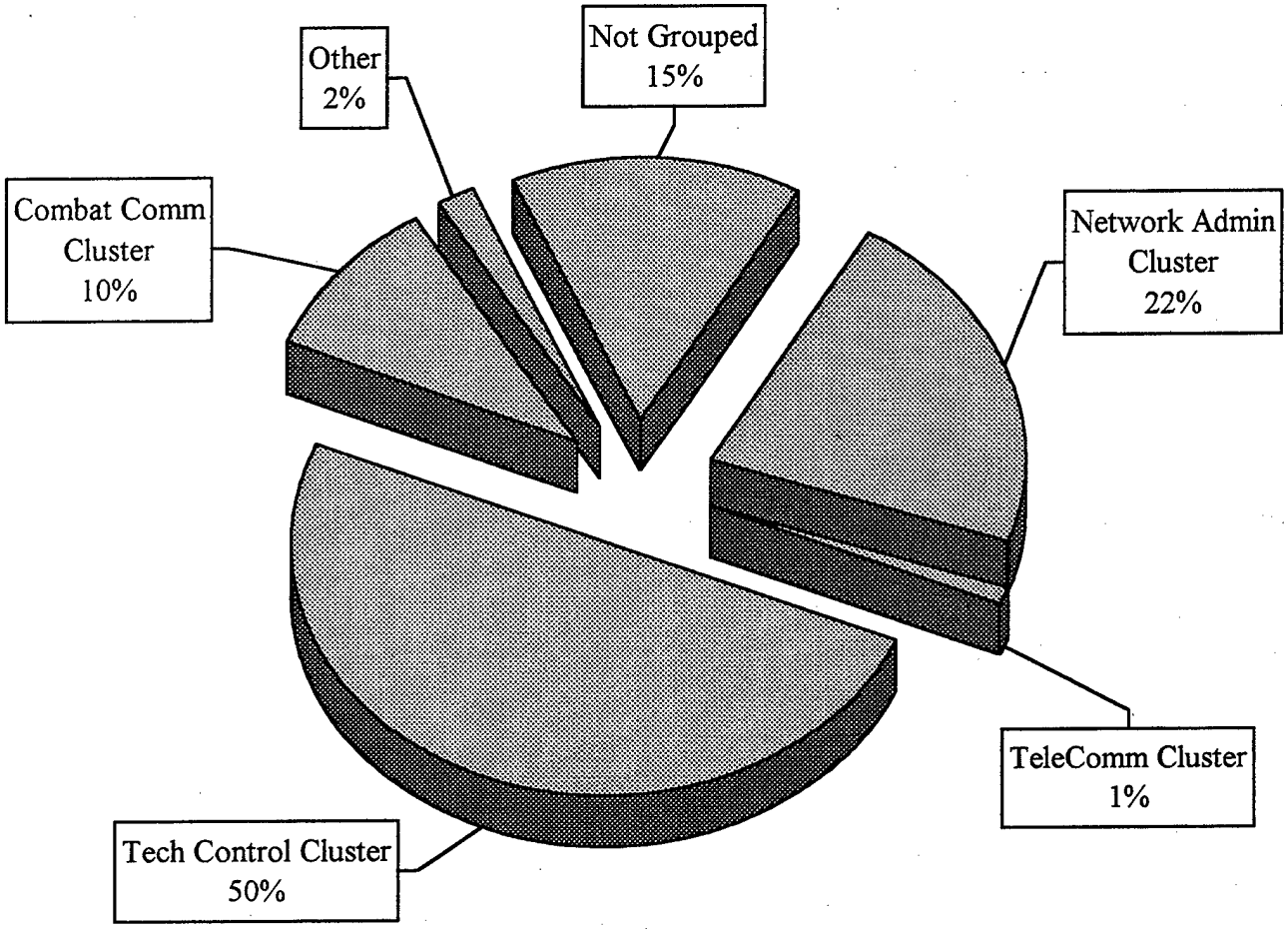


FIGURE 3

TABLE 27

RELATIVE PERCENT TIME SPENT ON DUTIES BY
AFSC 3C0X1/3C2X1 FIRST-ENLISTMENT PERSONNEL (1-48 MOS TAFMS)

	DUTIES	DAFSC 3C0X1 1st ENL (N=1,045)	DAFSC 3C2X1 1st ENL (N=273)
A	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS ACTIVITIES	17	7
B	PERFORMING NETWORK MANAGEMENT AND ADMINISTRATIVE ACTIVITIES	22	14
C	PERFORMING GENERAL COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES	2	8
D	PERFORMING CIRCUIT MONITORING AND ANALYSIS ACTIVITIES	2	10
E	PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS ACTIVITIES	-	4
F	MAINTAINING TELECOMMUNICATIONS SYSTEMS	5	29
G	PERFORMING MAINFRAME COMPUTER OPERATOR ACTIVITIES	9	4
H	PERFORMING PRODUCTION CONTROL OR SYSTEMS MONITOR ACTIVITIES	-	-
I	PERFORMING MAGNETIC MEDIA LIBRARY ACTIVITIES	3	-
J	PERFORMING NONMOBILE TELEPHONE SWITCHBOARD ACTIVITIES	3	2
K	PERFORMING TELECOMMUNICATIONS TRAFFIC ANALYSIS ACTIVITIES	12	1
L	ERECTING OR MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT OR FACILITIES	-	5
M	PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS (DSCS) ACTIVITIES	-	-
N	PERFORMING SOFTWARE TESTING, QUALITY ASSURANCE, OR CONFIGURATION MANAGEMENT ACTIVITIES	1	1
O	PERFORMING COMMUNICATIONS-COMPUTER SYSTEMS SECURITY ACTIVITIES	12	5
P	PERFORMING COMMUNICATIONS-COMPUTER MOBILITY ACTIVITIES	2	2
Q	PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	2	1
R	PERFORMING TRAINING ACTIVITIES	2	1
S	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER (TO) SYSTEM ACTIVITIES	1	1
T	PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	2

TABLE 28

REPRESENTATIVE TASKS PERFORMED BY AFSC 3C0X1
FIRST-ENLISTMENT PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=1,045)
A0006	Assist users in resolving computer software malfunctions or problems	54
B0036	Answer trouble calls from end users dealing with network outages	49
A0030	Respond to inquiries from customers, such as computer job or message status	47
O0605	Escort visitors through facilities	44
B0072	Reset account passwords for network users	41
A0005	Assist customers in preparation of help desk requests	40
B0079	Troubleshoot e-mail problems at user level	39
A0012	Distribute messages or output products	39
G0353	Perform communications-computer systems startup or shutdown procedures	38
A0009	Configure operating systems, such as UNIX or NT Server	37
O0602	Destroy or dispose of classified or sensitive unclassified materials	37
B0080	Troubleshoot network log-ons for end users	36
O0636	Witness destruction of classified materials	36
G0352	Perform communications-computer systems equipment power-on or power-off procedures	36
B0044	Create and modify existing network accounts	35
O0634	Store or safeguard classified materials	35
A0028	Prepare unclassified media for mail, delivery, or distribution	33
A0020	Install computer hardware for end users	32
B0054	Install network software for end users	32
T0807	Perform general housekeeping duties	32
B0039	Configure network software for end users	31
B0077	Troubleshoot connectivity problems from servers to workstations	31
O0604	Distribute classified materials	31
O0635	Verify access to restricted or controlled areas or classified materials	31
A0026	Notify addressees or distribution centers of high precedence message receipt	30
O0609	Inventory classified or communications security (COMSEC) materials	30
K0451	Respond to service messages	30
K0454	Stamp messages with special handling, precedence, or classification	29
K0446	Prepare service actions on messages, such as misrouted, garbled, incomplete, or interlaced	29
G0357	Perform recovery procedures on communications-computer systems	29
B0066	Open trouble tickets and assign to appropriate workcenters	28
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	28
K0453	Separate incoming messages for distribution	27
K0438	Inspect message forms for releasing authority, classification, precedence, date-time group, or special instructions	27
K0437	Follow up on service messages	27
K0452	Retrieve messages manually	26
K0440	Maintain service message logs or files	26
G0349	Notify affected personnel, such as supervisors or remote users, of machine failures or downtimes	26
K0462	Review messages for accuracy or proper handling	25
A0004	Analyze statistical data, such as systems availability, user log-ons, or traffic data	25

Average Number of Tasks Performed = 49

TABLE 29

REPRESENTATIVE TASKS PERFORMED BY AFSC 3C2X1
FIRST-ENLISTMENT PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=273)
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	68
B0036	Answer trouble calls from end users dealing with network outages	66
F0276	Perform fault isolation on modems	66
F0261	Perform digital circuit loop-backs	65
F0270	Perform fault isolation on digital circuits	64
F0262	Perform equipment loop-backs	64
A0002	Analyze circuit, communications line, or equipment outage reports	62
C0098	Label patch panels, equipment, or alternate routings	59
F0232	Fabricate cables	57
F0310	Remove or replace modems	56
J0411	Initiate loop-back tests	55
F0263	Perform fault isolation on analog circuits	54
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	53
O0605	Escort visitors through facilities	53
D0154	Perform BERTs on modulator-demodulators (modems)	53
E0193	Perform block error rate tests or BERTs on high-speed data circuits	52
L0472	Check continuity of cables or in-house wiring	51
G0363	Test modems	51
B0081	Troubleshoot on-line circuit outages	49
F0260	Perform cryptographic resynchronizations	49
F0317	Restore high-speed data circuits	49
F0223	Coordinate cryptographic synchronizations with distant ends	49
F0255	Patch digital lines	48
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	47
F0254	Patch digital equipment	47
F0272	Perform fault isolation on fiber optic systems	47
F0245	Operate cryptographic equipment	47
B0066	Open trouble tickets and assign to appropriate workcenters	46
F0222	Coordinate cryptographic key changes with users	46
F0256	Perform audio channel loop-backs	46
L0471	Check continuity between local technical controls and users	45
O0636	Witness destruction of classified materials	45
F0320	Wire-wrap cross-connects on distribution frames	45
F0216	Configure modems, other than circuit card assembly (CCA) data orderwire diphase modems	45
F0289	Perform operational checks of modems	44
B0077	Troubleshoot connectivity problems from servers to workstations	43
C0104	Maintain or prepare automated or manual DD Forms 1443 (Trouble and Restoration Record)	43
F0265	Perform fault isolation on cable systems	43
D0140	Identify types of standards, such as EIA * MILSTD 188-114	42
L0470	Check continuity between local and distant technical controls	41
F0267	Perform fault isolation on computer network circuits, such as DSN or defense information systems network (DISN)	41

Average Number of Tasks Performed = 95

Training Emphasis (TE) and Task Difficulty (TD) Data

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment personnel training. Also included for the training personnel is a measure of the difficulty of the JI tasks.

When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To assist technical school personnel, AFOMS has developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. These indicators correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 2, AETCI 36-2601, and allows course personnel to quickly focus their attention on those tasks which are most likely to qualify for initial resident course consideration.

AFSC 3C0X1 TE and TD

Table 30 presents tasks with the highest TE ratings for AFSC 3C0X1 first job and first-enlistment airmen. For example, AFSC 3C0X1 TE raters (refer to Table 30) reported that configure operating systems, such as UNIX or NT Servers, requires a high degree of training emphasis. Also, examining the corresponding numbers shows that about one third of Airmen in their first job and within their first enlistment are performing these tasks. Based on these numbers, this task is probably appropriate for tech school training.

Table 31 displays those tasks AFSC 3C0X1 highest in TD. Raters judged these tasks to be the most difficult to learn for first job and first-enlistment personnel as well as for all skill levels. Build network servers was reported to be the most difficult task to learn based on the opinions of the raters. Another highly rated task, configure operating systems, such as UNIX or NT Servers, has a very high percent members performing. Both of these tasks may be appropriate for tech school training.

AFSC 3C2X1 TE and TD

Table 32 presents tasks with the highest TE ratings for AFSC 3C2X1 first job and first-enlistment airmen. Use monitoring tools, such as HP Open View, to monitor base networks is the task that AFSC 3C2X1 raters deemed to be highest in training emphasis. However, the second most highly rated task, troubleshoot on-line circuit outages, has higher percent members performing and a higher task difficulty rating. This makes it even more appropriate for resident training than the top rated task.

Table 33 displays those tasks AFSC 3C2X1 raters judged highest in TD. For example, Table 33 shows that raters reported build network servers, to be the most difficult task to learn. However, because of the low percentage of first job and first enlistment airmen performing this task, it may not be appropriate for tech school. Conversely, a lower ranked task, troubleshoot on-line circuit outages, although not quite as difficult to learn, may be more appropriate for the resident curriculum due to the high number of individuals performing this task.

Various lists of tasks, accompanied by TE and TD ratings and where appropriate, ATI information, are contained in the TRAINING EXTRACT package and should be reviewed in detail by training school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.)

TABLE 30

TASKS RATED HIGHEST IN TRAINING EMPHASIS
BY DAFSC 3C0X1 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING			
		TNG EMP*	1ST JOB (N=401)	1ST ENL (N =1,045)	TASK DIFF**
A0009	Configure operating systems, such as UNIX or NT Server	6.56	33	37	7.59
A0006	Assist users in resolving computer software malfunctions or problems	5.80	52	54	5.92
B0039	Configure network software for end users	5.69	29	31	7.00
B0056	Install and configure network servers	5.65	18	21	7.56
A0020	Install computer hardware for end users	5.63	34	32	5.47
B0082	Troubleshoot server outages	5.48	20	24	6.86
B0054	Install network software for end users	5.48	34	32	5.73
B0080	Troubleshoot network log-ons for end users	5.41	36	36	5.51
B0044	Create and modify existing network accounts	5.35	35	35	4.76
B0078	Troubleshoot e-mail problems at server letter	5.31	22	22	6.84
B0079	Troubleshoot e-mail problems at user level	5.22	40	39	6.12
B0038	Build network servers	5.20	14	20	8.19
B0072	Reset account passwords for network users	4.91	40	41	3.38
B0077	Troubleshoot connectivity problems from servers to workstations	4.89	31	31	6.71
B0036	Answer trouble calls from end users dealing with network outages	4.76	47	49	6.01
B0052	Implement existing network server software	4.74	13	16	6.05
B0070	Report network security violations, such as sending classified messages through unclassified circuits	4.63	15	18	4.40

* Mean TE Rating is 1.31 , and Standard Deviation is 2.49 (High TE = 3.80)
** Average TD Rating is 5.00

TABLE 31

TASKS RATED HIGHEST IN TASK DIFFICULTY
BY DAFSC 3C0X1 PERSONNEL

TASKS		TASK DIFF	PERCENT MEMBERS PERFORMING 1ST JOB (N=401)	1ST ENL (N=1,045)	3-SKL LVL (N=716)	5-SKL LVL (N=2,275)	7-SKL LVL (N=832)	TNG EMP
B0038	Build network servers	8.19	14	20	17	29	27	5.20
B0045	Design technical solutions for new network requirements	8.14	8	11	9	18	23	2.43
A0009	Configure operating systems, such as UNIX or NT Server	7.59	33	37	33	49	48	6.56
B0056	Install and configure network servers	7.56	18	21	18	31	29	5.65
F0237	Install local area networks (LANs)	7.30	11	12	10	17	17	3.78
B0084	Upgrade network infrastructure	7.23	9	11	9	17	20	3.31
B0039	Configure network software for end users	7.00	29	31	28	38	35	5.69
B0060	Maintain network infrastructure	6.92	11	12	10	17	18	3.76
B0082	Troubleshoot server outages	6.86	20	24	21	33	27	5.48
B0078	Troubleshoot electronic mail (e-mail) problems at server level	6.84	22	22	19	27	23	5.31
B0085	Upgrade existing network server hardware	6.78	11	14	12	23	23	3.96
F0275	Perform fault isolation on LANS	6.73	12	11	11	18	17	3.43
B0077	Troubleshoot connectivity problems form severs to workstations	6.71	31	31	28	37	30	4.89
B0083	Upgrade existing network server software	6.56	16	21	19	30	27	4.59

* Mean TE Rating is 1.31 , and Standard Deviation is 2.49 (High TE = 3.80)
** Average TD Rating is 5.00

TABLE 32

TASKS RATED HIGHEST IN TRAINING EMPHASIS
BY DAFSC 3C2X1 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING			
		TNG EMP*	1ST JOB (N=123)	1ST ENL (N =273)	TASK DIFF**
B0086	Use monitoring tools, such as Hewlett Packard (HP) Open View, to monitor base networks	5.76	22	25	6.04
B0081	Troubleshoot on-line circuit outages	5.61	54	49	7.43
F0277	Perform fault isolation on network management systems	5.56	20	24	6.90
F0275	Perform fault isolation on LANs	5.46	35	36	7.27
F0276	Perform fault isolation on modems	5.44	64	66	6.02
D0163	Perform in-service quality controls (QCs) using automated systems, such as DPASs or integrated data network exchanges (IDNXs)	5.41	35	33	5.09
D0154	Perform BERTs on modulator-demodulators (modems)	5.32	50	53	5.61
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	5.29	67	68	5.60
F00191	Perform BERTs on TDM circuits	5.24	37	38	5.36
F0241	Monitor LAN status	5.22	24	27	5.41
F0237	Install local area networks (LANs)	5.10	29	30	7.10
F0264	Perform fault isolation on bulk encryption equipment	5.07	34	37	6.23
F0270	Perform fault isolation on digital circuits	5.05	64	64	6.29
F0254	Patch digital equipment	5.00	46	47	4.83
B0060	Maintain network infrastructure	5.00	21	25	7.50
F0255	Patch digital lines	5.00	46	48	4.79

* Mean TE Rating is 1.96 , and Standard Deviation is 2.64 (High TE = 4.60)
** Average TD Rating is 5.00

TABLE 33

TASKS RATED HIGHEST IN TASK DIFFICULTY
BY DAFSC 3C2X1 PERSONNEL

TASKS		TASK DIFF	PERCENT MEMBERS PERFORMING 1ST JOB (N=123)	1ST ENL (N=273)	3-SKL LVL (N=172)	5-SKL LVL (N=478)	7-SKL LVL (N=210)	TNG EMP
B0038	Build network servers	8.64	11	11	6	17	20	3.59
B0045	Design technical solutions for new network requirements	8.61	11	15	14	31	45	3.10
A0009	Configure operating systems, such as UNIX or NT Server	8.59	16	20	19	27	29	3.98
B0056	Install and configure network servers	8.16	9	12	9	18	21	4.15
B0084	Upgrade network infrastructure	8.10	15	20	18	28	29	3.51
B0069	Provide technical solutions for new network requirements using AF Forms 3215	8.04	8	11	9	22	29	2.39
B0085	Upgrade existing network server hardware	7.72	11	11	9	16	18	3.22
B0039	Configure network software for end users	7.69	17	21	17	27	27	3.90
B0082	Troubleshoot server outages	7.68	22	21	19	20	20	4.20
F0286	Perform fiber optic cable maintenance, such as splicing, connecting, or installing	7.66	28	30	28	26	17	4.34
B0078	Troubleshoot e-mail problems at the server level	7.57	12	12	9	13	12	3.37
B0060	Maintain network infrastructure	7.50	21	25	22	31	31	5.00
B0081	Troubleshoot on-line circuit outages	7.43	54	49	50	48	32	5.61
F0275	Perform fault isolation on LANs	7.27	35	36	34	40	33	5.46
B0055	Install technical solutions for new network requirements	7.11	15	20	17	29	33	3.93
F0237	Install local area networks (LANs)	7.10	29	30	30	32	28	5.10

* Mean TE Rating is 1.96 , and Standard Deviation is 2.64 (High TE = 4.60)
** Average TD Rating is 5.00

Specialty Training Standard (STS)

A comprehensive review of STS 3C0X1 / 3C2X1, draft edition, compared STS items to survey data. This was based on assistance from AFSC 3C0X1 and 3C2X1 Subject Matter Experts (SMEs) in matching JI tasks to STS elements. STS elements containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities were not examined. Task knowledge and performance elements of the STS were compared against the standard set forth in AETCI 36-2601 and AFI 36-2623 (i.e., include tasks performed or knowledge required by 20 percent or more of the personnel in a skill level (criterion group) of the AFS).

Tables 34 and 35 present technical tasks that were matched to STS areas for each career ladder. Based on percent members performing, training emphasis, and task difficulty, several of the proficiency codes for the corresponding STS areas require review. For example, for the 3C0X1 career ladder, examining Table 34, notice that STS area 8.6.4.1.2 has a dashed proficiency coding. However, tasks matched to this area show high percent members performing, training emphasis, and task difficulty numbers. Based on this, the STS area in question should be further examined for possible proficiency coding. Similarly, for the 3C2X1 career ladder (see Table 35), STS area 8.1.14, is dashed, but the data shows high percent members performing the associated task. Based on this, proficiency coding is recommended for this area.

Another factor is examined in Tables 36 and 37. These tables list tasks that SMEs were unable to find suitable STS areas to match to. Based on high numbers in each of the 3 factors mentioned previously, these tasks should be reviewed as a basis for adding new corresponding STS line items. One unmatched task common to both AFSCs is Operate cryptographic equipment. Based on the numbers performing and TE and TD data, an STS line item would be recommended if it is feasible. It is interesting to note that AFSC 3C2X1 members have a much higher incidence of unmatched tasks than do the 3C0X1 members. This is possibly because although the 3C2X1 members have a great enough percentage of members performing these tasks for a new STS line item to be included, once combined, the overall percentage of members performing these tasks may become low enough so as not to warrant inclusion.

One final note is that although most of the areas and tasks that should be examined are included here, a more complete list can be obtained from the training extract which is available at any time from AFOMS and usually is included along with the OSR.

TABLE 34

EXAMPLES OF TECHNICAL TASKS PERFORMED BY AFSC 3C0X1
GROUP MEMBERS SUGGESTED FOR PROFICIENCY CODE REVIEW

TASKS		3-skill Lvl Course	5-skill Lvl CDC	TNG EMP	Percent Members Performing 3-SKL LVL (N=716)	5-SKL LVL (N=2275)	7-SKL LVL (N=832)	TASK DIFF	ATI
10.1.1.4	**IP Ops Management – AF COMSEC – Process COMSEC – Inventory**	-	-						
O0609	Inventory classified or COMSEC materials			3.98	32	30	30	4.82	12
8.6.4.1.2	**C-CS Software – Configure – Operating Systems – NT Server**	-	-						
A0009	Configure operating systems, such as UNIX or NT Server			6.56	33	49	48	7.59	12
B0039	Configure network software for end users			5.69	28	38	35	7.00	12
8.6.4.1.2	**C-CS Software – Configure – Operating Systems – UNIX**	-	-						
A0009	Configure operating systems, such as UNIX or NT Server			6.56	33	49	48	7.59	12
B0039	Configure network software for end users			5.69	28	38	35	7.00	12

* Mean TE Rating is 1.31 , and Standard Deviation is 2.49 (High TE = 3.80)
** Average TD Rating is 5.00

TABLE 35

EXAMPLES OF TECHNICAL TASKS PERFORMED BY AFSC 3C2X1
GROUP MEMBERS SUGGESTED FOR PROFICIENCY CODE REVIEW

TASKS		3-skill Lvl Course	5-skill Lvl CDC	TNG EMP	Percent Members Performing 3-SKL LVL (N=172)	5-SKL LVL (N=478)	7-SKL LVL (N=210)	TASK DIFF	ATI
2.6.4.1	**Information Protection – Physical Security – Classified Material Storage**	**A**	**B**						
O0634	Store or safeguard classified materials			2.68	30	29	30	4.44	15
7.2.4.1/2	**Fundamentals of C-CS – Network Operating Theory – Standards**	-	**A**						
D0140	Identify types of standards, such as EIA 232/433/423/449, DS1, DS2, DS3, DS4, V.35, V.24, or MILSTD 188-114			4.98	42	46	37	6.66	12
8.1.14	**C-CS Hardware & Software – Install Hardware – Modems**	-	-						
F0310	Remove or replace modems			3.46	52	57	39	4.58	18
10.1.1.4	**IP Ops Management – AF COMSEC – Process COMSEC – Inventory**	-	-						
O0609	Inventory classified or COMSEC materials			2.73	39	35	27	4.81	15
11.3.3.1	**Deployable C-CS – Mobile C-CS – Systems Control Elements- CNCE**	-	**A**						
L0472	Check continuity of cables or in-house wiring			3.93	54	46	27	4.82	18
12.2.3	**Digital Switching Systems – DPAS - Operate**	-	-						
D0163	Perform in-service QCs using automated systems such as DPAS			5.41	34	27	12	5.09	12
14.3.5.2.1	**C-CS Network/Circuit Mgt – Perf – QA – Idle Channel Noise**	-	-						
D0161	Perform idle channel noise tests			3.98	37	27	11	4.20	12
14.7.11	**C-CS Network/Circuit Mgt – Measure – Gains, Hits, and Dropouts**	-	-						
				3.59	37	23	8	4.87	12

* Mean TE Rating is 1.96 , and Standard Deviation is 2.64 (High TE = 4.60)

TABLE 36

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE AFSC 3C0X1 GROUP MEMBERS AND NOT REFERENCED TO THE STS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 3-SKL LVL (N=716)	5-SKL LVL (N=2275)	7-SKL LVL (N=832)	TASK DIFF	ATI
A0006	Assist users in resolving computer software malfunctions or problems	5.81	53	60	54	5.92	18
A0030	Respond to inquiries from customers, such as computer job or message status	4.02	48	42	31	4.05	12
G0353	Perform communications-computer systems startup or shutdown procedures	3.54	39	38	29	4.05	12
B0082	Troubleshoot Server outages	5.48	21	33	27	6.86	11
F0245	Operate cryptographic equipment	3.19	24	23	19	4.77	11
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	3.00	29	40	40	3.61	9
G0352	Perform communications-computer systems equipment power-on or power-off procedures	3.20	37	36	28	3.63	10

* Mean TE Rating is 1.31 , and Standard Deviation is 2.49 (High TE = 3.80)
** Average TD Rating is 5.00

TABLE 37

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE AFSC 3C2X1 GROUP MEMBERS AND NOT REFERENCED TO THE STS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 3-SKL LVL (N=172)	5-SKL LVL (N=478)	7-SKL LVL (N=210)	TASK DIFF	ATI
F0263	Perform fault isolation on analog circuits	4.85	55	50	29	5.96	18
F0276	Perform fault isolation on modems	5.44	64	66	45	6.02	18
G0363	Test modems	4.02	51	49	34	4.55	18
J0411	Initiate loop-back tests	3.22	59	45	22	4.52	17
F0238	Isolate faults to commercial interfaces (demarcs)	4.51	41	41	24	5.94	12
C0098	Label patch panels, equipment, or alternate routings	3.85	58	54	28	3.54	13
D0137	Conduct acceptance testing of new systems, circuits, or equipment	4.63	32	33	20	6.24	12
F0237	Install local area networks (LANs)	5.10	30	32	28	7.10	12
F0245	Operate cryptographic equipment	3.44	48	45	26	5.09	12
F0228	Direct alternate routing of ciruits	3.95	29	29	17	5.62	12
F0256	Perform audio channel loop-backs	4.39	49	38	20	4.23	12
F0257	Perform continuity checks on cross-connections	4.73	33	38	22	4.30	12
F0260	Perform cryptographic resynchronizations	4.07	49	47	26	4.19	12
F0264	Perform fault isolation on bulk encryption equipment	5.07	36	41	21	6.23	12
F0265	Perform fault isolation on cable systems	4.95	44	44	28	5.63	12
F0267	Perform fault isolation on computer network circuits, such as DSN or DISN	4.71	39	41	30	6.62	12
F0289	Perform operational checks of modems	4.17	41	46	35	4.73	12
F0286	Perform fiber optic cable maintenance, such as splicing, connecting, or installing	4.34	28	26	17	7.66	12
B0060	Maintain network infrastructure	5.00	22	31	31	7.50	11

* Mean TE Rating is 1.96 , and Standard Deviation is 2.64 (High TE = 4.60)

** Average TD Rating is 5.00

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

AFSC 3C0X1. Table 38 presents job satisfaction data for AFSC 3C0X1 TAFMS groups, together with TAFMS data for a comparative sample of Support career ladders surveyed in 1998. Examining this table, it becomes evident that AFSC 3C0X1 personnel are noticeably lower in job satisfaction in every aspect. Also of note is that although reenlistment intentions are notably low for the comparative career ladders already, 3C0X1 members intentions are lower still.

An indication of how job satisfaction perceptions have changed over time is provided in Table 39, where once again current job satisfaction by 3C0X1 TAFMS groups is presented, along with data from the last OSR. Reviewing this table, current survey satisfaction ratings for the 1-48 months TAFMS group has risen slightly in two areas, stayed about the same in two others, but dropped noticeably in reenlistment intentions. Once again, in the second enlistment group, job satisfaction ratings rose slightly in every area except for reenlistment intentions where once again they drop off sharply. Even at the 97+ months TAFMS group, where ratings are typically the most stable, there is a noticeable drop in reenlistment intentions. It should be noted however that 22 percent of this group intend to retire.

AFSC 3C2X1. In Table 40, 3C2X1 job satisfaction rating for TAFMS groups is presented with a comparative sample of Support career ladders presented to the right. As with AFSC 3C0X1, reenlistment intentions are notably lower at every level, with second enlistment members showing the largest disparity. Also of note is the lower perceived utilization of training scores than the comparative groups, although it is not as pronounced as the reenlistment intention difference.

Table 41 indicates how job satisfaction ratings have changed since the previous survey of this career ladder in 1994). It is interesting to note that job satisfaction indicators have actually risen slightly in many aspects for the second enlistment members with the exception of reenlistment intentions, which have dropped off sharply.

JOB STRUCTURE. Table 42 presents job satisfaction for each of the identified specialty clusters and jobs. As can be seen, the greatest overall job satisfaction occurred for the core Network Administration Cluster and the Quality Control Job. The Network Security Cluster posted some fairly high numbers as well. At the other end of the spectrum, the Systems Monitoring Job and Mainframe Operator Job members seem to be the least satisfied in their work. Members of the Switchboard Operator Job, also low in job satisfaction, were noted as having the lowest percent of members who plan to reenlist. Two groups who showed the greatest job satisfaction anomaly were the members of the Network Administration Cluster and the Tech Control Cluster, who both had relatively high job interest but very low reenlistment intentions.

TABLE 38

COMPARISON OF JOB SATISFACTION
INDICATORS BY 3C0X1 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1999 3C0X1 (N=1,045)	COMP SAMPLE* (N=249)	1999 3C0X1 (N=756)	COMP SAMPLE* (N=190)	1999 3C0X1 (N=2024)	COMP SAMPLE* (N=383)
EXPRESSED JOB INTEREST:						
INTERESTING	56	77	65	80	72	81
SO-SO	18	13	15	10	14	12
DULL	26	10	20	10	14	7
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	62	84	69	82	78	83
LITTLE OR NOT AT ALL	38	16	31	18	22	17
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	61	88	62	85	66	81
LITTLE OR NOT AT ALL	39	12	38	15	34	19
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	49	74	58	72	65	73
NEUTRAL	16	10	11	11	11	9
DISSATISFIED	35	16	31	17	24	18
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	37	47	39	56	57	72
NO, OR PROBABLY NO	63	53	61	44	21	11
PLAN TO RETIRE	-	-	-	-	22	17

* Comparative sample of Support career ladders surveyed in 1997

TABLE 39

COMPARISON OF CURRENT SURVEY AND
PREVIOUS SURVEY BY 3C0X1 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1999 3C0X1 (N=1,045)	1994 3C0X1 (N=850)	1999 3C0X1 (N=756)	1994 3C0X1 (N=752)	1999 3C0X1 (N=2,024)	1994 3C0X1 (N=1,206)
EXPRESSED JOB INTEREST:						
INTERESTING	56	50	65	56	72	69
SO-SO	18	22	15	17	14	16
DULL	26	28	20	26	14	14
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	62	57	69	66	78	76
LITTLE OR NOT AT ALL	38	43	31	35	22	23
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	61	67	62	59	66	65
LITTLE OR NOT AT ALL	39	33	38	40	34	35
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	49	50	58	55	65	67
NEUTRAL	16	20	11	14	11	11
DISSATISFIED	35	30	31	30	24	22
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	37	60	39	71	57	75
NO, OR PROBABLY NO	63	40	61	29	21	8
PLAN TO RETIRE	-	-	-	-	22	17

TABLE 40

COMPARISON OF JOB SATISFACTION
INDICATORS BY 3C2X1 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1999 3C2X1 (N=273)	COMP SAMPLE* (N=249)	1999 3C2X1 (N=107)	COMP SAMPLE* (N=190)	1999 3C2X1 (N=497)	COMP SAMPLE* (N=383)
EXPRESSED JOB INTEREST:						
INTERESTING	72	77	83	80	77	81
SO-SO	14	13	7	10	12	12
DULL	14	10	10	10	11	7
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	77	84	82	82	79	83
LITTLE OR NOT AT ALL	23	16	18	18	21	17
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	66	88	76	85	69	81
LITTLE OR NOT AT ALL	34	12	24	15	31	19
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	67	74	76	72	68	73
NEUTRAL	13	10	5	11	8	9
DISSATISFIED	20	16	19	17	24	18
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	32	47	26	56	44	72
NO, OR PROBABLY NO	68	53	74	44	25	11
PLAN TO RETIRE	-	-	-	-	31	17

* Comparative sample of Support career ladders surveyed in 1997

TABLE 41

COMPARISON OF CURRENT SURVEY AND
PREVIOUS SURVEY BY 3C2X1 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1999 3C2X1 (N=273)	1994 3C2X1 (N=404)	1999 3C2X1 (N=107)	1994 3C2X1 (N=319)	1999 3C2X1 (N=497)	1994 3C2X1 (N=742)
EXPRESSED JOB INTEREST:						
INTERESTING	72	80	83	74	77	80
SO-SO	14	11	7	11	12	10
DULL	14	9	10	12	11	10
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	77	78	82	76	79	81
LITTLE OR NOT AT ALL	23	22	18	24	21	19
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	66	77	76	73	69	76
LITTLE OR NOT AT ALL	34	23	24	27	31	24
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	67	75	76	70	68	71
NEUTRAL	13	12	5	10	8	8
DISSATISFIED	20	13	19	19	24	21
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	32	58	26	65	44	73
NO, OR PROBABLY NO	68	41	74	35	25	9
PLAN TO RETIRE	-	-	-	-	31	18

TABLE 42

JOB SATISFACTION BY SPECIALTY CLUSTER OR JOB
(PERCENT MEMBERS RESPONDING)

Cluster or Job	Job Interest			Talent Utilization		Training Utilization		Sense of Accomplishment			Reenlistment Intentions		
	yes	so-so	No	yes	no	yes	no	yes	neutral	no	yes	no	retire
Network Administration Cluster (STG167)	87	8	5	88	12	74	26	75	8	17	42	47	11
Systems Administration Cluster (STG255)	75	16	9	81	19	67	33	56	11	33	48	40	12
Network Security Cluster (STG365)	84	6	10	80	20	73	27	69	6	25	47	43	10
Supervisor/Manager Cluster (STG291)	69	14	17	75	25	60	40	61	12	27	56	13	31
C-CS Security Cluster (STG204)	64	21	15	71	29	59	41	61	13	26	54	29	17
Telecommunications Cluster (STG217)	40	23	37	53	47	64	36	39	16	45	52	45	3
Tech Control Cluster (STG238)	74	14	12	79	21	78	22	66	12	21	37	53	10
Combat-Comm Cluster (STG272)	72	16	12	77	23	67	33	63	13	24	46	38	16
Formal Trainer Job (STG846)	75	17	8	84	16	72	28	70	10	20	49	33	18
Magnetic Media Job (STG646)	32	18	50	44	56	53	47	29	15	56	41	56	3
Mainframe Operator Job (STG522)	28	16	56	44	56	42	58	25	31	44	36	61	3
Systems Monitoring Job (STG439)	17	39	44	39	61	33	67	39	17	44	33	50	17
Quality Control Job (STG588)	88	9	3	88	12	85	15	74	14	12	62	20	18
Message Distribution Job (STG639)	35	15	50	35	65	45	55	20	25	55	40	60	0
Equipment Control Job (STG589)	45	18	37	54	46	36	64	45	12	43	54	36	10
Switchboard Operator Job (STG640)	35	6	59	29	71	24	76	41	6	53	29	65	6

IMPLICATIONS

This survey was initiated to provide current job and task data for use in evaluating the AFMAN 36-2108 *Specialty Description*, appropriate training documents, and to lend support for an upcoming merger of the 3C0X1 and 3C2X1 career ladders. Survey results indicate that the present classification structure, as described in the latest specialty description, somewhat accurately portrays the jobs performed in these career ladders.

One job performed by AFSC 3C0X1 members that does not seem to be adequately mentioned is the Telecommunications Job. Some tasks performed by members include respond to service messages; prepare service actions on messages, such as misrouted, garbled, incomplete, or interlaced; follow up on service messages; stamp messages with special handling, precedence, or classification; and distribute messages or output products. While the members performing this job are not the core of this career ladder, a substantial population does exist, especially at the lower skill levels.

Career ladder training documents appear on the whole to be supported by survey data, although some areas, especially for the 3C2X1 career ladder may require further review to ensure appropriate proficiency coding. Some identified tasks (again mostly for the 3C2X1 career ladder) should also be examined for possible STS inclusion. Other areas in the STS should be examined along with the data for currency and, if not supported, removed or amended.

Job satisfaction indicators for these career ladders, although normally lower than comparable samples, have actually risen slightly or stayed the same since the previous survey. However, reenlistment intentions for both career ladders has dropped off sharply since the previous surveys and is lower than comparative samples. This is true even for the 97+ TAFMS group which typically has been very stable in all aspects, but now seems to have a higher percentage than normal retiring or not reenlisting. Across specialty jobs and clusters, the most satisfaction was found in the groups performing the either the core work for their respective career ladder or the core work of the entire sample. The lowest satisfaction occurred in some entry level jobs and jobs that were not part of the core work of the career field.

Overall, the results of this survey do show some overlap between these two career ladders, especially in the area of network administration. Even within this area however, the actual tasks performed do differ substantially. It should also be noted that a large percentage of the members of this study are performing a majority of their duties and tasks in jobs or areas unique to their respective career ladder.

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APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY SPECIALTY JOB GROUPS

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TABLE A1

NETWORK ADMINISTRATION CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=1,588)
A0006	Assist users in resolving computer software malfunctions or problems	86
B0036	Answer trouble calls from end users dealing with network outages	82
A0009	Configure operating systems, such as UNIX or NT Server	80
B0080	Troubleshoot network log-ons for end users	76
B0039	Configure network software for end users	75
B0054	Install network software for end users	74
B0072	Reset account passwords for network users	73
B0044	Create and modify existing network accounts	72
B0079	Troubleshoot e-mail problems at user level	70
A0020	Install computer hardware for end users	70
B0077	Troubleshoot connectivity problems from servers to workstations	70
B0082	Troubleshoot server outages	62
B0056	Install and configure network servers	60
B0083	Upgrade existing network server software	58
A0005	Assist customers in preparation of help desk requests	57
B0038	Build network servers	57
B0065	Monitor network resources	55
F0241	Monitor LAN status	53
B0052	Implement existing network server software	53
B0078	Troubleshoot electronic mail (e-mail) problems at server level	51
B0068	Perform tape backups of network servers	48
B0085	Upgrade existing network server hardware	48
B0066	Open trouble tickets and assign to appropriate workcenters	45
A0030	Respond to inquiries from customers, such as computer job or message status	45
R0734	Conduct on-the-job training (OJT)	45
B0064	Monitor network events, such as invalid log-ons	45
B0037	Assign Internet protocol (IP) addresses for base infrastructure	45
B0055	Install technical solutions for new network requirements	43
B0084	Upgrade network infrastructure	41
F0275	Perform fault isolation on LANs	41
A0004	Analyze statistical data, such as systems availability, user log-ons, or traffic data	41
B0086	Use monitoring tools, such as Hewlett Packard (HP) Open View, to monitor base networks	40
B0045	Design technical solutions for new network requirements	40
G0342	Load operating systems	39
T0807	Perform general housekeeping duties	39
B0060	Maintain network infrastructure	38
B0043	Create office and personal drives for end users	38
F0237	Install local area networks (LANs)	38
A0003	Analyze computer performance measurement data	37
G0325	Change systems hardware configurations	36
G0353	Perform communications-computer systems startup or shutdown procedures	36
O0605	Escort visitors through facilities	36
B0081	Troubleshoot on-line circuit outages	33
G0352	Perform communications-computer systems equipment power-on or power-off procedures	33
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	33

TABLE A2

SYSTEMS ADMINISTRATION CLUSTER

	TASKS	PERCENT MEMBERS PERFORMING (N=57)
A0006	Assist users in resolving computer software malfunctions or problems	100
A0009	Configure operating systems, such as UNIX or NT Server	63
A0020	Install computer hardware for end users	53
A0005	Assist customers in preparation of help desk requests	49
A0003	Analyze computer performance measurement data	46
A0004	Analyze statistical data, such as systems availability, user log-ons, or traffic data	33
A0008	Compile statistical data, such as systems availability, user log-ons, or traffic data	28
B0036	Answer trouble calls from end users dealing with network outages	26
B0077	Troubleshoot connectivity problems from servers to workstations	26
B0079	Troubleshoot e-mail problems at user level	25
A0030	Respond to inquiries from customers, such as computer job or message status	21
A0021	Maintain lists of recurring systems errors	21
A0016	Evaluate quality of customer service	19
A0012	Distribute messages or output products	16
A0023	Make entries on equipment maintenance records	16
A0002	Analyze circuit, communications line, or equipment outage reports	14
B0072	Reset account passwords for network users	12
A0013	Establish or review input or output (I/O) logs	12
B0039	Configure network software for end users	11
A0019	Initialize processing, such as batch job, on-line, or off-line	11
B0082	Troubleshoot server outages	11
B0044	Create and modify existing network accounts	11
A0022	Make entries on equipment configuration or utilization logs	11
F0241	Monitor LAN status	9
B0054	Install network software for end users	9
B0038	Build network servers	9
B0081	Troubleshoot on-line circuit outages	9
G0342	Load operating systems	9
R0734	Conduct on-the-job training (OJT)	7
B0080	Troubleshoot network log-ons for end users	5
O0598	Assign user identifications (IDs) or passwords	5
B0064	Monitor network events, such as invalid log-ons	4

TABLE A3

NETWORK SECURITY CLUSTER

	TASKS	PERCENT MEMBERS PERFORMING (N=51)
B0074	Review incoming or outgoing network logs for suspicious traffic	94
B0073	Respond to real-time ASIMS alerts	88
B0062	Manage application of Air Force Computer Emergency Response Team (AFCERT) advisories or IP bulletins	88
B0064	Monitor network events, such as invalid log-ons	84
B0051	Identify customers involved in network security violations	80
A0004	Analyze statistical data, such as systems availability, user log-ons, or traffic data	63
A0009	Configure operating systems, such as UNIX or NT Server	61
B0041	Coordinate resolution of network security violations with designated approval authority (DAA)	57
B0070	Report network security violations, such as sending classified messages through unclassified circuits	55
B0086	Use monitoring tools, such as Hewlett Packard (HP) Open View, to monitor base networks	53
A0008	Compile statistical data, such as systems availability, user log-ons, or traffic data	49
B0071	Research computer virus inquiries	47
B0050	Follow local procedures for reminisance security violations	43
B0067	Perform risk analyses on network resources	39
O0605	Escort visitors through facilities	39
A0013	Establish or review input or output (I/O) logs	35
B0036	Answer trouble calls from end users dealing with network outages	33
B0065	Monitor network resources	33
B0059	Maintain access lists on routers to provide network security	33
A0006	Assist users in resolving computer software malfunctions or problems	33
R0734	Conduct on-the-job training (OJT)	29
A0003	Analyze computer performance measurement data	29
D0148	Monitor network management systems	27
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	27
D0146	Monitor communications networks using automated systems	25
B0053	Implement network policy files	25
T0807	Perform general housekeeping duties	25
B0075	Track IP addresses for base infrastructure	24
R0736	Determine training requirements	24
F0241	Monitor LAN status	22
A0005	Assist customers in preparation of help desk requests	22
R0735	Counsel trainees on training progress	22
B0039	Configure network software for end users	22
Q0727	Write or indorse military performance reports	20
Q0728	Write recommendations for awards or decorations	20
B0047	Develop network policy files	20
G0353	Perform communications-computer systems startup or shutdown procedures	20
R0746	Maintain training records or files	20
B0068	Perform tape backups of network servers	20
B0058	Maintain tape backups of traffic screened by Air Staff Information Management System (ASIMS)	20
G0352	Perform communications-computer systems equipment power-on or power-off procedures	20
A0030	Respond to inquiries from customers, such as computer job or message status	18
G0342	Load operating systems	18

TABLE A4

SUPERVISOR/MANAGER CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=429)
Q0692	Counsel subordinates concerning personal matters	91
Q0728	Write recommendations for awards or decorations	90
Q0727	Write or indorse military performance reports	89
Q0709	Evaluate personnel for compliance with performance standards	89
Q0716	Interpret policies, directives, or procedures for subordinates	88
Q0715	Inspect personnel for compliance with military standards	87
Q0689	Conduct supervisory performance feedback sessions	85
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	83
Q0705	Establish performance standards for subordinates	83
Q0694	Determine or establish work assignments or priorities	81
Q0691	Conduct supervisory orientations for newly assigned personnel	79
Q0699	Develop or establish work methods or procedures	71
R0746	Maintain training records or files	71
Q0722	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	71
Q0700	Develop or establish work schedules	70
R0735	Counsel trainees on training progress	70
Q0714	Initiate actions required due to substandard performance of personnel	70
R0736	Determine training requirements	67
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	66
R0734	Conduct on-the-job training (OJT)	65
R0744	Evaluate progress of trainees	65
Q0684	Assign personnel to work areas or duty positions	63
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	63
R0731	Brief personnel concerning training programs or matters	62
Q0687	Conduct self-inspections or self-assessments	59
Q0724	Write job or position descriptions	59
S0772	Participate in alerts or recalls	59
Q0693	Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	56
Q0712	Implement safety or security programs	54
Q0713	Initiate personnel action requests	51
R0738	Develop training programs, plans, or procedures	50
T0807	Perform general housekeeping duties	50
Q0685	Assign sponsors for newly assigned personnel	50
O0605	Escort visitors through facilities	47
Q0719	Review budget requirements	46
Q0729	Write replies to inspection reports	46
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	46
Q0701	Draft budget requirements	45
Q0721	Review drafts of supplements or changes to directives, such as policy directives, instructions, or manuals	45
A0006	Assist users in resolving computer software malfunctions or problems	43

TABLE A5

C-CS SECURITY CLUSTER

	TASKS	PERCENT MEMBERS PERFORMING (N=408)
O0634	Store or safeguard classified materials	92
O0636	Witness destruction of classified materials	91
O0602	Destroy or dispose of classified or sensitive unclassified materials	86
O0609	Inventory classified or communications security (COMSEC) materials	85
O0635	Verify access to restricted or controlled areas or classified materials	85
O0613	Maintain visitor registers	82
O0620	Prepare destruction reports for classified materials	81
O0633	Sign receipts for classified materials	81
O0611	Maintain COMSEC account records	78
O0612	Maintain COMSEC emergency action plans (EAPs)	76
O0615	Page count classified materials	75
O0616	Perform administrative security inspections	74
O0599	Change lock combinations for safes, vaults, or cipher locks	74
O0614	Mark or stamp sensitive unclassified or classified information, other than messages	73
O0605	Escort visitors through facilities	73
O0608	Inspect classified materials	69
O0617	Perform courier functions	69
O0626	Prepare or update access lists to restricted or controlled areas or classified materials	69
Q0687	Conduct self-inspections or self-assessments	68
O0610	Issue COMSEC materials	67
O0604	Distribute classified materials	65
O0601	Designate classified materials for destruction	63
O0600	Conduct security briefings or debriefings	61
O0629	Review documents for security violations	58
O0618	Perform physical security inspections of facilities	57
R0734	Conduct on-the-job training (OJT)	56
O0628	Review classified materials destruction plans	56
O0603	Determine protection requirements for classified materials	55
T0807	Perform general housekeeping duties	54
Q0704	Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	54
S0756	Maintain administrative files	53
O0625	Prepare or revise security procedures checklists	53
O0631	Sanitize sites or equipment upon completion of classified processing	53
O0606	Establish or update classified materials files	51
Q0712	Implement safety or security programs	51
Q0692	Counsel subordinates concerning personal matters	50
S0772	Participate in alerts or recalls	50
Q0689	Conduct supervisory performance feedback sessions	49
Q0729	Write replies to inspection reports	48
Q0694	Determine or establish work assignments or priorities	48
Q0728	Write recommendations for awards or decorations	48
S0754	Initiate classified reports, messages, or documents	47
Q0727	Write or indorse military performance reports	47

TABLE A6

TELECOMMUNICATIONS CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=671)
K0451	Respond to service messages	97
K0446	Prepare service actions on messages, such as misrouted, garbled, incomplete, or interlaced	92
K0437	Follow up on service messages	89
K0454	Stamp messages with special handling, precedence, or classification	87
A0012	Distribute messages or output products	86
K0438	Inspect message forms for releasing authority, classification, precedence, date-time group, or special instructions	86
K0453	Separate incoming messages for distribution	85
K0452	Retrieve messages manually	85
K0440	Maintain service message logs or files	85
A0026	Notify addressees or distribution centers of high precedence message receipt	83
K0443	Prepare abbreviated plaindress messages	83
K0442	Perform alternate routing of message traffic	82
K0462	Review messages for accuracy or proper handling	78
K0436	Follow special instructions on messages	77
O0605	Escort visitors through facilities	76
O0636	Witness destruction of classified materials	75
K0430	Annotate time of transmission or receipt on messages	74
O0602	Destroy or dispose of classified or sensitive unclassified materials	74
O0604	Distribute classified materials	73
A0030	Respond to inquiries from customers, such as computer job or message status	72
O0634	Store or safeguard classified materials	71
K0429	Annotate station serial number on messages	69
O0609	Inventory classified or communications security (COMSEC) materials	67
A0028	Prepare unclassified media for mail, delivery, or distribution	66
K0432	Assign routing indicators	66
K0456	Maintain address indicator group (AIG) files	63
O0635	Verify access to restricted or controlled areas or classified materials	63
K0439	Maintain message register, receipt, or destruction certificate forms	61
K0460	Maintain plain language address (PLA) tables	60
K0441	Make entries on DD Forms 1503 (Message Correction Notice)	60
G0353	Perform communications-computer systems startup or shutdown procedures	59
K0463	Review traffic logs or files	58
O0613	Maintain visitor registers	58
K0431	Assign operating signals	57
G0352	Perform communications-computer systems equipment power-on or power-off procedures	56
R0734	Conduct on-the-job training (OJT)	54
G0356	Perform or practice communications-computer systems emergency procedures	54
T0807	Perform general housekeeping duties	53
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	52
F0245	Operate cryptographic equipment	52
K0457	Maintain alternate routing plans	51
K0458	Maintain general message files	49
O0608	Inspect classified materials	48
G0357	Perform recovery procedures on communications-computer systems	48

TABLE A7

TECH CONTROL CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=346)
D0153	Perform bit error rate tests (BERTs) on digital circuits or equipment	91
F0270	Perform fault isolation on digital circuits	90
F0261	Perform digital circuit loop-backs	90
F0262	Perform equipment loop-backs	90
F0276	Perform fault isolation on modems	84
D0154	Perform BERTs on modulator-demodulators (modems)	79
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	78
F0263	Perform fault isolation on analog circuits	78
A0002	Analyze circuit, communications line, or equipment outage reports	77
F0255	Patch digital lines	77
F0254	Patch digital equipment	76
F0260	Perform cryptographic resynchronizations	75
E0193	Perform block error rate tests or BERTs on high-speed data circuits	75
C0098	Label patch panels, equipment, or alternate routings	75
F0223	Coordinate cryptographic synchronizations with distant ends	74
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	73
F0222	Coordinate cryptographic key changes with users	73
F0317	Restore high-speed data circuits	73
F0245	Operate cryptographic equipment	71
J0411	Initiate loop-back tests	69
C0104	Maintain or prepare automated or manual DD Forms 1443 (Trouble and Restoration Record)	69
O0636	Witness destruction of classified materials	67
F0310	Remove or replace modems	67
O0605	Escort visitors through facilities	66
F0256	Perform audio channel loop-backs	66
F0264	Perform fault isolation on bulk encryption equipment	65
G0363	Test modems	65
B0036	Answer trouble calls from end users dealing with network outages	64
L0472	Check continuity of cables or in-house wiring	64
D0140	Identify types of standards, such as EIA * MILSTD 188-114	63
F0232	Fabricate cables	63
C0103	Maintain or prepare automated or manual DD Forms 1441 (Circuit Data)	62
F0265	Perform fault isolation on cable systems	62
F0316	Reroute users using digital patch bays	62
O0609	Inventory classified or communications security (COMSEC) materials	61
F0267	Perform fault isolation on computer network circuits, such as DSN or defense information systems network (DISN)	61
F0320	Wire-wrap cross-connects on distribution frames	61
F0220	Coordinate circuit releases with subscribers	61
E0191	Perform BERTs on TDM circuits	61
F0216	Configure modems, other than circuit card assembly (CCA) data orderwire diphase modems	61
L0471	Check continuity between local technical controls and users	60
F0272	Perform fault isolation on fiber optic systems	60
F0289	Perform operational checks of modems	60
F0253	Patch audio lines	59
T0807	Perform general housekeeping duties	58

TABLE A8

COMBAT COMMUNICATIONS CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=136)
P0650	Load or unload mobile communications equipment on or off vehicles	88
P0642	Don or doff chemical suits	85
P0673	Prepare communications-computer systems equipment for field operations	83
P0674	Prepare communications-computer systems supplies for field operations	82
P0638	Camouflage mobile sites	82
P0672	Prepare clothing for deployment	82
P0658	Perform first-aid lifesaving techniques	82
P0654	Palletize cargo build-up for airlift	81
P0666	Perform operations checks or services on vehicles	79
P0667	Perform safety or road checks on vehicles	79
P0648	Identify communications requirements for deployment	78
P0649	Inspect chemical suits	78
P0679	Replace chemical mask filters	78
F0245	Operate cryptographic equipment	76
L0503	Interface with tactical switching vans, such as AN/TTC-39	74
P0644	Erect or dismantle 12-man tents	74
O0636	Witness destruction of classified materials	74
T0807	Perform general housekeeping duties	73
L0508	Lay tactical communications cables	72
P0665	Perform operational checks of mobile communications equipment, other than convoy equipment	72
P0640	Clean weapons	72
R0734	Conduct on-the-job training (OJT)	71
P0678	Process calls through mobile telephone equipment	71
F0262	Perform equipment loop-backs	71
S0772	Participate in alerts or recalls	71
P0675	Prepare load lists	70
P0676	Prepare sites for mobile communications	69
P0653	Mobilize communications vans	69
L0501	Interface with mobile site communications	68
L0487	Connect power cables	68
F0222	Coordinate cryptographic key changes with users	67
L0507	Isolate tactical circuit or systems malfunctions	66
L0490	Coordinate tactical communications plans with distant ends	66
O0609	Inventory classified or communications security (COMSEC) materials	66
O0634	Store or safeguard classified materials	65
F0261	Perform digital circuit loop-backs	65
P0670	Practice emergency action destruction procedures (EADPs)	65
O0635	Verify access to restricted or controlled areas or classified materials	65
L0495	Install telephone equipment	64
P0661	Perform initial tests of systems in mobile environments	64
P0641	Demobilize communications vans	64
P0637	Assemble or disassemble weapons	64
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	63
L0506	Interface with TSSRs	63
P0680	Secure communications-computer systems equipment in vans for movement	63
P0639	Camouflage personnel	63
P0647	Fire small arms weapons	63

TABLE A9

FORMAL TRAINING JOB

TASKS		PERCENT MEMBERS PERFORMING (N=61)
R0740	Develop or procure training materials or aids	98
R0738	Develop training programs, plans, or procedures	92
R0736	Determine training requirements	89
R0730	Administer or score tests	87
R0746	Maintain training records or files	85
R0731	Brief personnel concerning training programs or matters	84
R0733	Conduct formal course classroom training	82
R0744	Evaluate progress of trainees	82
R0745	Inspect training materials or aids for operation or suitability	80
R0747	Personalize lesson plans	79
R0739	Develop written tests	77
R0735	Counsel trainees on training progress	77
R0737	Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	74
R0743	Evaluate effectiveness of training programs, plans, or procedures	72
R0741	Establish or maintain study reference files	70
R0732	Complete student entry or withdrawal forms	56
R0742	Evaluate training methods or techniques of instructors	48
R0734	Conduct on-the-job training (OJT)	44
A0009	Configure operating systems, such as UNIX or NT Server	44
T0807	Perform general housekeeping duties	43
R0749	Write training reports	41
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	38
B0044	Create and modify existing network accounts	33
R0748	Prepare job qualification standards (JQSs)	31
A0006	Assist users in resolving computer software malfunctions or problems	31
S0772	Participate in alerts or recalls	31
B0038	Build network servers	28
B0039	Configure network software for end users	28
B0054	Install network software for end users	28
Q0699	Develop or establish work methods or procedures	26
B0056	Install and configure network servers	26
B0077	Troubleshoot connectivity problems from servers to workstations	25
T0810	Pick up, deliver, or store equipment, tools, parts, or supplies	23
Q0709	Evaluate personnel for compliance with performance standards	21
T0799	Inventory equipment, tools, parts, or supplies	21
S0756	Maintain administrative files	21
O0605	Escort visitors through facilities	21
B0072	Reset account passwords for network users	21
A0020	Install computer hardware for end users	21
B0079	Troubleshoot e-mail problems at user level	21
Q0687	Conduct self-inspections or self-assessments	20
B0083	Upgrade existing network server software	20
B0086	Use monitoring tools, such as Hewlett Packard (HP) Open View, to monitor base networks	18
G0342	Load operating systems	18
B0052	Implement existing network server software	18

TABLE A10

MAGNETIC MEDIA JOB

TASKS		PERCENT MEMBERS PERFORMING (N=34)
I0392	Inventory magnetic media	91
I0393	Issue magnetic media from library	88
I0383	Clean magnetic media	88
I0391	File returned magnetic media	85
I0386	Degauss magnetic media	85
I0387	Destroy magnetic media	85
I0388	Establish or update magnetic media accountability records	82
I0390	File magnetic media, other than returned magnetic media	82
G0339	Label magnetic media	79
G0331	Format magnetic media	76
I0402	Visually inspect magnetic media	76
I0395	Make entries on magnetic media control logs	76
I0384	Compare internal and external labels of magnetic media	74
O0605	Escort visitors through facilities	74
G0326	Check out magnetic media from libraries	71
I0382	Certify magnetic media	71
G0327	Coordinate magnetic media requirements with magnetic media librarians	68
I0389	Establish or update magnetic media history files	68
A0018	Identify magnetic media needed from or to be returned to off-site storage	68
G0348	Mount or dismount magnetic media	65
I0385	Coordinate magnetic media requirements with systems console operators or systems monitors	65
O0634	Store or safeguard classified materials	62
I0394	Maintain off-site or remote storage backup files	62
A0005	Assist customers in preparation of help desk requests	59
A0006	Assist users in resolving computer software malfunctions or problems	59
O0604	Distribute classified materials	59
T0807	Perform general housekeeping duties	59
O0636	Witness destruction of classified materials	59
B0044	Create and modify existing network accounts	56
I0401	Update scratch tapes or disk pack lists	56
O0602	Destroy or dispose of classified or sensitive unclassified materials	56
G0354	Perform magnetic media searches	53
A0028	Prepare unclassified media for mail, delivery, or distribution	53
B0072	Reset account passwords for network users	50
O0633	Sign receipts for classified materials	50
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	50
A0007	Compare magnetic media identification for agreement	50
B0036	Answer trouble calls from end users dealing with network outages	47
I0398	Purge magnetic media, other than by degaussing	47
A0030	Respond to inquiries from customers, such as computer job or message status	47
G0353	Perform communications-computer systems startup or shutdown procedures	47
B0080	Troubleshoot network log-ons for end users	44
O0635	Verify access to restricted or controlled areas or classified materials	44
O0598	Assign user identifications (IDs) or passwords	44
G0352	Perform communications-computer systems equipment power-on or power-off procedures	44

TABLE A11

MAINFRAME OPERATOR JOB

TASKS		PERCENT MEMBERS PERFORMING (N=36)
G0353	Perform communications-computer systems startup or shutdown procedures	97
G0352	Perform communications-computer systems equipment power-on or power-off procedures	94
G0361	Respond to systems requests	89
G0357	Perform recovery procedures on communications-computer systems	89
G0339	Label magnetic media	89
G0348	Mount or dismount magnetic media	86
G0356	Perform or practice communications-computer systems emergency procedures	86
G0349	Notify affected personnel, such as supervisors or remote users, of machine failures or downtimes	83
G0362	Set or reset computer time clocks	83
G0344	Monitor data flow	78
G0354	Perform magnetic media searches	72
I0386	Degauss magnetic media	67
G0360	Request systems information via consoles	64
G0343	Maintain operations of peripheral equipment	64
I0383	Clean magnetic media	64
A0030	Respond to inquiries from customers, such as computer job or message status	61
G0364	Transfer programs or data from one media to another media	61
G0323	Analyze console displays or system printouts	58
G0337	Isolate causes of machine stops or malfunctions	58
I0390	File magnetic media, other than returned magnetic media	56
I0395	Make entries on magnetic media control logs	56
O0605	Escort visitors through facilities	56
I0402	Visually inspect magnetic media	53
G0329	Correct stoppages on communications-computer systems peripheral equipment	53
G0355	Perform operator maintenance on temperature or humidity recording devices	53
I0384	Compare internal and external labels of magnetic media	53
A0019	Initialize processing, such as batch job, on-line, or off-line	50
A0006	Assist users in resolving computer software malfunctions or problems	50
I0391	File returned magnetic media	47
A0012	Distribute messages or output products	47
G0331	Format magnetic media	47
G0326	Check out magnetic media from libraries	47
I0392	Inventory magnetic media	47
R0734	Conduct on-the-job training (OJT)	44
G0334	Interpret indicating lights on peripheral equipment	44
A0018	Identify magnetic media needed from or to be returned to off-site storage	44
D0144	Monitor automated systems displays	42
D0145	Monitor communications equipment using automated systems	42
I0393	Issue magnetic media from library	42
T0807	Perform general housekeeping duties	42
I0382	Certify magnetic media	42
I0396	Place load-point or end-of-tape markers on magnetic tapes	42
A0002	Analyze circuit, communications line, or equipment outage reports	39
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	39
G0342	Load operating systems	39

TABLE A12

SYSTEMS MONITOR JOB

	TASKS	PERCENT MEMBERS PERFORMING (N=18)
D0144	Monitor automated systems displays	100
D0142	Monitor automated circuit displays	94
D0145	Monitor communications equipment using automated systems	78
D0146	Monitor communications networks using automated systems	78
G0349	Notify affected personnel, such as supervisors or remote users, of machine failures or downtimes	72
D0143	Monitor automated error counts	67
G0348	Mount or dismount magnetic media	61
O0605	Escort visitors through facilities	61
G0353	Perform communications-computer systems startup or shutdown procedures	61
F0219	Coordinate circuit or equipment problems with other technical controls or communications facilities	56
B0036	Answer trouble calls from end users dealing with network outages	56
T0807	Perform general housekeeping duties	56
S0772	Participate in alerts or recalls	56
G0356	Perform or practice communications-computer systems emergency procedures	56
G0352	Perform communications-computer systems equipment power-on or power-off procedures	56
T0806	Monitor operational equipment status	50
O0634	Store or safeguard classified materials	50
E0189	Monitor wideband high-speed data circuits	44
G0339	Label magnetic media	44
G0357	Perform recovery procedures on communications-computer systems	44
O0614	Mark or stamp sensitive unclassified or classified information, other than messages	44
G0362	Set or reset computer time clocks	44
D0149	Monitor transmission systems using automated systems	39
G0361	Respond to systems requests	39
O0635	Verify access to restricted or controlled areas or classified materials	39
G0360	Request systems information via consoles	39
C0088	Change tapes on recorders or soundscribers	33
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	33
O0636	Witness destruction of classified materials	33
O0602	Destroy or dispose of classified or sensitive unclassified materials	33
C0096	Implement activation or changes of circuits	28
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	28
A0002	Analyze circuit, communications line, or equipment outage reports	28
A0022	Make entries on equipment configuration or utilization logs	28
C0090	Coordinate maintenance dispatch for user equipment problems with job control or contract maintenance	28
R0734	Conduct on-the-job training (OJT)	28
F0221	Coordinate conference calls with customers	28
A0005	Assist customers in preparation of help desk requests	28
B0065	Monitor network resources	22
D0148	Monitor network management systems	22
F0241	Monitor LAN status	22
G0323	Analyze console displays or system printouts	22
F0220	Coordinate circuit releases with subscribers	22

TABLE A13

QUALITY CONTROL JOB

TASKS		PERCENT MEMBERS PERFORMING (N=34)
N0593	Test computer programs	94
N0580	Review communications-computer systems test plans	94
N0581	Review communications-computer systems test reports	94
N0591	Run validation or verification tests on communications-computer systems	91
N0582	Review communications-computer systems input test data	88
N0566	Analyze communications-computer systems test results	82
N0577	Participate in software acceptance tests on communications-computer systems	82
N0585	Run integration tests on communications-computer systems	82
N0586	Run interface type tests on communications-computer systems	76
N0587	Run parallel type tests on communications-computer systems	76
N0570	Develop inputs to communications-computer systems test plans	74
N0590	Run total systems tests on communications-computer systems	74
N0588	Run regression tests on communications-computer systems	74
N0567	Determine impact of communications-computer applications systems errors	71
N0568	Determine impact of operating systems errors	71
N0594	Track status of software discrepancies	71
N0569	Determine impact of releases or changes to systems data bases	65
G0351	Participate in testing or debugging programs with programmers	65
N0589	Run subsystems tests on communications-computer systems	59
A0009	Configure operating systems, such as UNIX or NT Server	59
N0579	Prepare communications-computer systems input test data	53
G0342	Load operating systems	50
N0583	Review requests for deviations from or waivers of configuration identification requirements	47
Q0694	Determine or establish work assignments or priorities	47
N0584	Review requests for deviations from or waivers of standards or specifications	44
A0006	Assist users in resolving computer software malfunctions or problems	44
R0738	Develop training programs, plans, or procedures	44
Q0686	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	41
Q0692	Counsel subordinates concerning personal matters	41
Q0689	Conduct supervisory performance feedback sessions	41
Q0705	Establish performance standards for subordinates	41
N0578	Perform data base conversions	38
Q0716	Interpret policies, directives, or procedures for subordinates	38
G0353	Perform communications-computer systems startup or shutdown procedures	38
S0779	Write minutes of briefings, conferences, or meetings	38
Q0715	Inspect personnel for compliance with military standards	38
Q0709	Evaluate personnel for compliance with performance standards	38
Q0710	Evaluate personnel for promotion, demotion, reclassification, or special awards	38
R0731	Brief personnel concerning training programs or matters	38
H0379	Review communications-computer systems software release or patch documentation	35
N0572	Evaluate changes to computer nets or networks	35
Q0699	Develop or establish work methods or procedures	35
G0350	Participate in communications-computer systems equipment acceptance tests	32
N0574	Identify hardware configuration performance deficiency trends	32
G0352	Perform communications-computer systems equipment power-on or power-off procedures	32

TABLE A14

MESSAGE DISTRIBUTION JOB

TASKS		PERCENT MEMBERS PERFORMING (N=20)
A0028	Prepare unclassified media for mail, delivery, or distribution	100
A0012	Distribute messages or output products	85
A0026	Notify addressees or distribution centers of high precedence message receipt	85
A0030	Respond to inquiries from customers, such as computer job or message status	65
A0029	Process output products	40
O0635	Verify access to restricted or controlled areas or classified materials	40
O0604	Distribute classified materials	35
A0027	Notify customers of completed output products	30
A0006	Assist users in resolving computer software malfunctions or problems	30
A0015	Establish or review transmittal logs	25
O0634	Store or safeguard classified materials	25
O0602	Destroy or dispose of classified or sensitive unclassified materials	25
O0605	Escort visitors through facilities	25
O0636	Witness destruction of classified materials	25
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	20
B0036	Answer trouble calls from end users dealing with network outages	15
T0807	Perform general housekeeping duties	15
A0002	Analyze circuit, communications line, or equipment outage reports	15
A0032	Review computer output products	10
D0145	Monitor communications equipment using automated systems	10
D0142	Monitor automated circuit displays	5
O0609	Inventory classified or communications security (COMSEC) materials	5

TABLE A15

EQUIPMENT CUSTODIAN JOB

TASKS		PERCENT MEMBERS PERFORMING (N=56)
T0802	Maintain equipment custodian accounts	96
T0794	Establish or update inventory or stock control records	88
T0799	Inventory equipment, tools, parts, or supplies	82
T0790	Dispose of excess or unserviceable tools, supplies, or equipment	82
T0793	Establish or maintain hand receipt files	80
T0810	Pick up, deliver, or store equipment, tools, parts, or supplies	79
T0800	Issue or log turn-ins of equipment, tools, parts, or supplies	70
T0814	Research status of purchase orders	64
T0807	Perform general housekeeping duties	61
T0796	Identify and report equipment or supply problems	52
T0795	Evaluate serviceability of equipment, tools, parts, or supplies	50
T0808	Perform operator maintenance on computer printers, such as setting paper thickness or replacing paper	48
T0791	Distribute purchasing information to vendors or customers	46
T0785	Confirm contract terms, such as delivery date or quantity	43
T0801	Maintain base-level purchase account records, such as local purchase	43
T0797	Initiate requisitions for equipment, tools, parts, or supplies	43
T0815	Review communications-computer systems excess or availability bulletins	38
T0813	Prepare or process output media for salvage or recycling	36
T0804	Monitor compliance with contracts	34
T0817	Review procurement documents	34
T0811	Prepare AF Forms 597 (ADPE Maintenance Record) or vendor invoice certificates	34
A0031	Review automated or manual AF Forms 3215 (C4 Systems Requirements Document)	32
T0782	Close out open purchase contract orders	30
T0780	Administer delivery of open purchase contract orders	30
Q0706	Establish procedures for accountability of equipment, tools, parts, or supplies	29
T0806	Monitor operational equipment status	25
S0772	Participate in alerts or recalls	25
T0788	Develop equipment checklists	23
T0792	Establish procedures for equipment maintenance or other contractual support services	23
T0786	Coordinate delivery of parts with supply functions	21
T0798	Inspect tools, supplies, or equipment, other than chemical suits	20
R0734	Conduct on-the-job training (OJT)	20
R0746	Maintain training records or files	20
S0756	Maintain administrative files	18
A0030	Respond to inquiries from customers, such as computer job or message status	18
A0006	Assist users in resolving computer software malfunctions or problems	18
A0020	Install computer hardware for end users	18
T0803	Maintain documentation on items requiring periodic inspections or calibrations	16
T0787	Determine requirements for modifications or amendments to contracts	16
Q0694	Determine or establish work assignments or priorities	16
B0069	Provide technical solutions for new network requirements using AF Forms 3215	14
T0818	Verify validity of supply requests	14
A0016	Evaluate quality of customer service	14
Q0727	Write or indorse military performance reports	13

TABLE A16

SWITCHBOARD OPERATOR JOB

TASKS		PERCENT MEMBERS PERFORMING (N=17)
J0418	Monitor high precedence or emergency calls	94
J0421	Place calls between subscribers, other than special handling calls	88
J0423	Process telephone conference calls	88
J0409	Connect calls according to precedence	82
J0417	Maintain telephone directories	82
J0422	Place special handling calls	76
J0413	Maintain logs of control numbers used by customers placing precedence calls	71
J0425	Reroute calls due to circuit failures	71
J0410	Coordinate switchboard circuit or equipment problems with maintenance, technical control, or support agencies	65
J0415	Maintain status boards on location of commanders	59
J0416	Maintain switchboard instructions for emergencies, such as fire, crash, or attack	59
J0404	Authenticate calls	47
C0106	Maintain or prepare automated or manual DD Forms 1753 (Master Station Log)	41
J0407	Compile telephone directories	41
S0772	Participate in alerts or recalls	41
J0405	Book calls	35
C0121	Notify communications support facilities of severe weather warning calls	35
F0221	Coordinate conference calls with customers	35
J0427	Supervise minimize condition actions	29
G0352	Perform communications-computer systems equipment power-on or power-off procedures	29
J0414	Maintain master telephone information files	24
T0807	Perform general housekeeping duties	24
R0734	Conduct on-the-job training (OJT)	24
J0412	Maintain accounts for telephone customers or toll services	12